THE TASMANIAN WASTE AND RESOURCE MANAGEMENT STRATEGY

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ENQUIRIES

Enquiries about this Strategy should be directed to:

Environment Division
GPO Box 1751, Hobart 7001

Phone: (03) 6233 6518
Email: EnvironmentEnquiries@environment.tas.gov.au

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Foreword

Tasmania is widely promoted as the clean, green State; a State proud of its heritage and abundant natural resources. The keystone of this image and message is the protection and conservation of our resources, of our land, air and water, and the protection of the health of our environment. To support this image and meet our responsibilities, as individuals, industries, community and government, we must reduce waste generation and promote and implement high quality waste minimisation and management practices.

Whilst the community has acknowledged the importance of environmental protection and has generally embraced the recycling message, current measures are not effective enough in stemming the tide of waste generation. As our population grows and the economy expands, we will be presented with new challenges in waste management. Tasmania faces a major challenge in de-coupling the growth in waste generation from economic and population growth.

The Tasmanian Waste and Resource Management Strategy has been developed with its aim to meet this challenge and to improve solid waste and resource management practices in Tasmania. The Strategy provides the framework for developing and guiding waste avoidance and reduction programs and resource recovery activities. The Strategy provides broad objectives for waste management and resource recovery, strategic actions to achieve the objectives, and performance measures with which to gauge our success in delivering of the Strategy.

It is recognised that Tasmania has some unique considerations including geographical distance to some recycling markets and waste treatment facilities and factors of economies of scale. The Strategy has therefore been developed on the basis of local solutions to local issues, building on local expertise and partnerships across the State.

The Strategy supports a vision for sustainable Tasmanian communities enjoying a healthy and safe environment, an inclusive society and a prosperous economy for the benefit of current and future generations.

I am therefore pleased to release the Tasmanian Waste and Resource Management Strategy and thank Blue Environment Pty Ltd, from whose reports and consultative work this Strategy derives. I also thank the Environment Division within the Department of Environment, Parks, Heritage and the Arts and all stakeholders within Local Government, regional waste authorities, various industry corporations and associations and the broader community who supported, contributed to and developed this Strategy.

Michelle O’Byrne,
Minister for Environment, Parks, Heritage and the Arts
EXECUTIVE SUMMARY

The Tasmanian Waste and Resource Management Strategy has been developed as a result of both State and Local Government’s commitment to improving waste management and waste minimisation services and practices, and as a result of industry and community concern about a growing waste management problem in the State. The Strategy provides broad guidance and a strategic framework for solid waste management and resource recovery initiatives and programs.

The Strategy meets the need for a shared vision, common objectives and lists strategic actions for all stakeholders to meet the objectives for improved waste and resource management in Tasmania. The Strategy is written for all stakeholders involved in waste and resource management in Tasmania and thus, the successful implementation of the Strategy will require incorporation of the Strategy’s objectives and strategic actions into government, industry and business planning processes. At a minimum, it is expected that State Government and Local Government will develop and implement Action Plans to deliver the Strategy’s objectives.

The objectives and strategic actions developed in the Strategy are also consistent with those in the recent Senate’s inquiry on Management of Australia’s Waste Streams, which provided 18 recommendations for improved coordination and progression of waste and resource management issues on a national level. The objectives are also consistent with the National Waste Policy which was in development and draft at the time of publication.

A Waste Advisory Committee will be established to ensure the successful implementation of the Strategy and to oversee the collaborative efforts in waste and resource management. The Waste Advisory Committee will be established to formalise links between State Government, Local Government, regional authorities, industry and the community. The Waste Advisory Committee will also have a role in identifying gaps in waste and resource management policy or programs and facilitating and seeking consensus amongst stakeholders on appropriate waste programs for Tasmania.

This Strategy provides a framework of key objectives for solid waste management and resource recovery, which are:

- Improved partnerships, coordination and planning
- Waste avoidance and sustainable consumption
- Waste minimisation and resource recovery
- Improved regulation and management of residual wastes
- Improved data collection and management systems
- Reduction of greenhouse gas emissions

There are strategic actions and performance measures identified for each of the objectives to guide stakeholders in developing Action Plans and in achieving the objectives and in the delivery of the Strategy.

It will be the role of the Waste Advisory Committee to report on the success of achieving these objectives but the role of all stakeholders to provide the commitment in attaining them and in implementing the Strategy.
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1 Introduction

Australia is one of the highest waste generating countries in the world on a per capita basis. However, there is a rising awareness in the broad community of the need for improved waste management and for waste minimisation. This is coupled with a growth of green consciousness and the issue of Climate Change at the forefront of environmental policy and global interest.

There are opportunities to reduce waste by changing our purchasing and consumption habits as individuals, in our communities and on corporate levels, and by employing resource-efficient practices, reusing materials, recovering and recycling resources which, instead, are commonly disposed of to landfill.

1.1 Current Status of Waste Management in Tasmania

In the 2007-2008 reporting year, data submitted to the Environment Protection Authority from the majority of the Tasmanian landfills reported disposal of 419,772 tonnes\(^1\) of solid waste into our landfills per year - that is a minimum of 0.8 tonnes per person. This includes waste from the municipal, commercial and industrial, construction and demolition, and controlled waste streams.

Also in the 2007-2008 reporting year, 10,600 tonnes\(^2\) per annum of controlled (hazardous) waste was exported to other jurisdictions for treatment and/or disposal.

There are currently no complete datasets for the total amount of waste diverted from landfill through recycling, re-use, or resource recovery. Data submitted to the Environment Protection Authority indicates that Tasmanians recycled approximately 51,880 tonnes\(^3\) of materials in 2007-2008 through kerbside recycling. The majority of these materials, by weight, was mixed paper and newsprint, cardboard and glass. Various plastics and metals comprise the remainder of recycled materials. Whilst this data is not complete and is not reflective of local government efforts in recycling, nor resource recovery efforts in the State, it indicates that materials recycled through kerbside represents 11%\(^4\) of the amount of waste generated in the State.

Waste disposal, resource recovery and recycling rates between 2002-2006 for all jurisdictions except Tasmania and Northern Territory were reported in the *Waste and Resources in Australia* Report, 2006, by Hyder Consulting. Results in this report indicate that for jurisdictions apart from Tasmania and Northern Territory, the average of waste recovered or recycled was 46%. It is clear that other jurisdictions have more complete datasets compared to Tasmania for waste diversion and resource recovery. In order for Tasmania to be able to benchmark resource recovery and recycling rates with other States, it is crucial to improve the coordination and extent of data collection systems in Tasmania.

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\(^1\) Note that this figure has been revised with updated data since the 2008 draft Strategy. Also note that this figure is a minimum, as the data submitted does not capture all landfills. 14 of the 16 landfills regulated by the Environment Protection Authority submitted this data, but there are additional landfills across the State either regulated by Local Government or are private landfills and data from these landfills is not captured.

\(^2\) Note that this figure has been revised with updated data since the 2008 draft Strategy. Data from National Environment Protection Council Annual Reports on the Implementation of the Movement of Controlled Waste between States and Territories NEPM.

\(^3\) Note that this figure has been revised with updated data since the 2008 draft Strategy.

\(^4\) 51,880 \(\div\) (51,880 + 10,600 + 419,772) = 11%
Local Government Authorities within Tasmania play an important role in the delivery of waste and resource management programs and services. In recent years local government authorities have banded together to form three regional authorities which assist in the coordination of services. In providing waste disposal and recycling services, Local Government and the three regional authorities are increasingly working together, coordinating their efforts on a regional basis and in line with regional waste management strategies.

Some individual Councils and industry groups also have waste management strategies in place. These and the regional strategies aim to deliver best value for their communities and a range of sustainable outcomes through a collaborative management approach and sharing of waste resources. It is the intention that the Strategy provides the framework and guidance for these other waste management strategies.

Under the provisions of the Environmental Management and Pollution Control Act 1994 (EMPCA), the Environment Protection Authority\(^5\) regulates waste management activities, over a specified tonnage, to reduce the potential environmental impact. In recent years a Compliance and Investigation Section has been formed to strengthen enforcement capacity for breaches of the EMPCA. A Sustainability Programs Section has also been formed to focus on education and the facilitation of waste and resource management programs.

The State Government has developed Approved Management Measures for the management of clinical and related wastes and biosolids to provide consistent and legislated guidance on the management of these waste streams. The Controlled Waste Strategy, jointly supported by the Department of Environment, Parks, Heritage and the Arts and the Department of Economic Development and Tourism, specifically targets areas of need with respect to controlled waste management and facilities in the State.

National programs and initiatives, such as the National Packaging Covenant, have seen an increase in voluntary efforts in recycling. In addition, industry and small businesses have made independent and voluntary steps towards improved waste and resource management practices with assistance from waste management associations, community groups and State and Local Government programs.

1.2 **Why do we need a Strategy?**

Whilst there have been improvements in waste and resource management practices, standards, initiatives and services within Tasmania in recent years, there is still more that can be done. There are some waste streams, the management of which is problematic or wastes that could be better utilised as resources and for which there are no guidelines, programs or initiatives provided.

In addition, there are opportunities for Tasmania to adopt a more sustainable approach to waste and resource management, and to match current standards and initiatives implemented nationally.

A more sustainable approach to waste and resource management is important for a number of reasons, such as:

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\(^5\) Prior to the establishment of the Environment Protection Authority, regulatory activities under the Environmental Management and Pollution Control Act 1994 were the responsibility of the Environment Division in the Department of Environment, Parks, Heritage and the Arts. Currently, staff employed within the Environment Division support and represent the Environment Protection Authority.
• Sustainable resource management will enable continued use of the resources by future generations;
• Valuable resources are ‘wasted’ and greenhouse gas emissions generated in producing things we throw away and replace unnecessarily;
• There is often a lost employment and economic opportunity in disposal of resources to landfill instead of resource recovery;
• Disposal and transportation of waste produces greenhouse gas emissions, contributing to climate change; and
• The generation, management and disposal of waste places an environmental, social and economic impost on all Tasmanians.

There has been increased dialogue between State Government, Local Government and industry on the need for a shared vision, common objectives and improved coordination of actions for improved waste and resource management in Tasmania.

With this in mind, the Tasmanian Waste and Resource Management Strategy has been developed as a result of both State and Local Government’s commitment to improving waste management and minimisation services and practices, and as a result of industry and community concern about a growing waste management problem in the State. The Strategy provides a response to these concerns, and incorporates a framework that has objectives and strategic actions developed as a result of consultation with all stakeholders and which meet the specific needs and requirements of Tasmania.

The Strategy recognises the need for local and unique waste management solutions in the State based on Tasmania’s low economies of scale and geographical distance from existing mainland and international markets of waste treatment and resource recovery. Addressing the waste management issues and finding effective solutions in Tasmania requires coordinated and collaborative action across the State. This Strategy builds upon the progress made and strengthens collaborative partnerships between the State and Local Governments, and between Government and industry.

1.3 Development of The Tasmanian Waste and Resource Management Strategy

The Tasmanian Waste and Resource Management Strategy has been developed to provide a framework to guide programs and initiatives to achieve improvement in waste and resource management.

Waste minimisation and improvements in waste and resource management can be achieved in a number of ways – through enforcement, economic and legislative drivers, education and awareness, support and facilitation, improved services and facilitates and leading by example. The Tasmanian Waste and Resource Management Strategy has been developed to encompass all these mechanisms to meet our current and future waste management challenges.

‘Waste’ and employing appropriate waste minimisation and management practices is everyone’s responsibility. The Strategy has been developed with this in mind - in consultation with, and for all sectors of the community that are involved in the generation, minimisation and management of wastes. Each of these stakeholders have roles and responsibilities in implementing the Strategy and achieving the objectives.

The Strategy was developed following public consultation and a strategic planning process involving State and Local Government, industry and community stakeholders. Blue Environment Pty Ltd was engaged as an independent consultant to coordinate stakeholder
input and to prepare a draft strategy reflecting as far as possible consensus on priority issues. Blue Environment also prepared a detailed background report on waste management issues. The Tasmanian Waste and Resource Management Strategy derives from this earlier work by Blue Environment.

1.4 **Key Themes from Stakeholder Input**
A number of key themes resulted from stakeholder input and have been incorporated in the objectives and strategic actions in this Strategy. These are:

- Principles of sustainability being integral of any initiatives arising from the Strategy;
- Waste avoidance and reduction;
- Better governance and leadership from State Government;
- Improved regulation and enforcement of waste management activities;
- An increase in resource recovery;
- An increase and improvements in data collection and management systems;
- Improved partnerships and cooperation between stakeholders, and
- Clarification of roles and responsibilities in relation to waste management and the implementation of this Strategy.

1.5 **Structure of the Strategy**
The Strategy document is structured as follows:

- **Purpose, Scope and Application** of the Strategy;
- **Guiding Principles** which underpin and direct the Strategy;
- **Objectives** for improved waste and resource management in the State;
- **Strategic Actions** to achieve the objectives and deliver this Strategy. The strategic actions may be long term and continuing programs, or discrete initiatives that will have a start and end date;
- **Performance measures** for each objective and used to monitor our success in achieving them;
- An overview of **roles and responsibilities** in waste and resource management (Appendix A);
- **Terms of Reference for the Waste Advisory Committee** (Appendix B).

2 **Vision**
The vision of The Tasmanian Waste and Resource Management Strategy is to have a resource-efficient society and to contribute to a clean, healthy and sustainable Tasmania.
3 Purpose, Scope and Application

3.1 Purpose
The purpose of this Strategy is to provide the framework and guidance for the coordinated management and delivery of state-wide, regional and local waste avoidance, reduction and resource recovery initiatives, practices and services. The Strategy is designed to guide waste management programs and practices to meet current needs, to lay the foundations for longer term waste management planning and to achieve improved environmental outcomes.

A further aim of the Strategy is for government, business and the community to work in partnership to manage waste and resources effectively through improved resource management and responsible management of residual waste to achieve optimum environmental, social and economic benefit.

There is also a need for all stakeholders to work together in developing markets for waste materials and resource recovery, which for example, will involve partnerships with the Department of Economic Development and Tourism. Partnerships built between all stakeholders are central to delivering better waste management outcomes for Tasmania and the successful implementation of the Tasmanian Waste and Resource Management Strategy will rely on all stakeholders working collaboratively.

3.2 Scope
Whilst the principles of this Strategy apply to all wastes, the objectives and strategic actions are aimed primarily at the solid waste stream. For the management of specific waste types, for example, controlled waste and biosolids, more detailed strategies and/or action plans have been, or will be, developed as necessary for their specific management requirements.

Additionally, the Strategy, its objectives and strategic actions have been developed for all sectors of the broader community. In order to effectively implement the Strategy, State and Local Government agencies, regional authorities and industry groups and businesses will need to develop or apply their own waste and resource management action plans for their areas of responsibility, using the framework of this Strategy for direction. The success of the Strategy also relies upon community engagement and participation in employing improved waste and resource management practices.

The Strategy has been developed in the context of recent national and State policy developments in relation to climate change and sustainability.

The Tasmanian Waste and Resource Management Strategy also supports the Tasmania Together Goal 12 in achieving Sustainable Management of our Natural Resources and aims to deliver the best outcome for all Tasmanians by promoting sustainable development.

3.3 Integration with Local Government, Regional and Industry Waste Management Strategies
This Strategy aims to provide for greater integration of Local and State Government efforts and consistency of approach to waste and resource management and complement Local Government and regional waste management strategies.

A number of industries and Industry Councils also have waste management strategies in place or under development. It is the intention that the objectives and strategic actions of this Strategy will inform decisions on industry waste management practices and regional and local government programs and services.
Throughout the implementation of this Strategy, opportunities will be sought to strengthen and support consistent strategic initiatives between State Government, Local Government, industry and the community.

3.4 Roles and Responsibilities

A clear understanding of stakeholder roles and responsibilities was vital in achieving the objectives of the Strategy. Appendix A defines those roles and responsibilities further but noted here are roles that all stakeholders have:

- minimising the amount of waste generated,
- reducing the amount of waste deposited to landfill and increasing the recovery of reusable resources from the waste stream,
- reducing the risk of environmental harm arising from the generation and management of waste,
- collaborating with other stakeholders to deliver better waste management outcomes to the Tasmanian community,
- contributing financially to improving waste management in accordance with the ‘user pays’ approach to waste generation.
- reducing the ecological footprint of the Tasmanian community,

3.5 Action Plans

The delivery of programs and services in line with the Strategy’s objectives and strategic actions will require development of waste-specific, industry-specific, region-specific, or program-specific Action Plans.

It is expected that, at a minimum, State Government and Local Government, either as individual authorities or through their regions, will develop and deliver Action Plans as appropriate for their area of responsibility in order to effectively achieve the objectives of the Strategy.

Performance measures are listed for each objective and will be used to monitor the success in achieving the objectives. Action plans should also enable the reporting of these performance measures. It should be noted that some performance measures are currently written in broad terms as there is a lack of currently available data. Performance measures will be incorporated and developed further with target dates and timeframes once data is collected.

4 Guiding Principles

The Tasmanian Waste and Resource Management Strategy is developed and guided by the overarching framework of the Resource Management and Planning System (RMPS) which also provides the framework for Tasmania’s environmental and planning legislation and policies. The cornerstone of the RMPS is the promotion of sustainable development requiring the effective integration of economic, social and environmental considerations in decision-making processes and strategic planning.

Further to the principle of sustainable development, there are other guiding principles in the Strategy which form its foundations and also of other industry-specific, waste-specific, or region-specific strategies and action plans aligned with it. The principles are as follows:
4.1 Waste Management Hierarchy

The Waste Management Hierarchy is a hierarchy of actions which are, in order of preference: waste avoidance, reduction, reuse, recycling, energy recovery, treatment and disposal (see Figure 1).

The waste management hierarchy aims to reduce the generation of waste and make better use of resources. By reducing the overall volume of waste generated, Tasmania is better placed to move towards a more sustainable future.

Figure 1: The Waste Management Hierarchy

4.2 Environmental Stewardship

In a waste management context, Environmental Stewardship recognises our roles and responsibilities to appropriately and effectively manage the wastes we produce to reduce any adverse environmental impacts and to protect the environment now and for future generations.

Tasmanians will have an increasing role and responsibility in environmental stewardship as the issue of climate change and reduction of greenhouse gas emissions becomes increasingly important on the national and international agenda.

4.3 Precautionary Principle

Where there is a lack of scientific information relating to the impact of certain activities, and there is the potential of serious and irreversible damage, or unknown risks associated with these activities, a precautionary approach to waste management should be taken to protect the environment and human health and safety.
If managed inappropriately, waste has the potential to pollute our land, air, and water, degrade the natural beauty of Tasmania, and impact upon the amenity, health and safety of our communities and environment.

4.4 **Life-Cycle Principle**

The Life-Cycle Principle is the notion that a fair, holistic assessment of environmental impact requires the assessment of raw material production, manufacture, distribution, use and disposal including all intervening transportation steps necessary or caused by the product's existence.

Product Stewardship fits into the Life Cycle concept whereby environmental protection centres on the product itself, and everyone involved in the lifespan of the product is called upon to take up responsibility to reduce its environmental impact.

4.5 **Polluter Pays and User Pays**

In the context of waste, the Polluter Pays Principle is based on the premise that those who generate waste or cause pollution from inappropriate waste management practices should bear the cost of its treatment, containment, or disposal. The User Pays Principle is similar but is based on the premise that those who use services pay for them.

5 **Objectives and Strategic Actions**

This Strategy provides a framework of key objectives for resource recovery and solid waste minimisation and management that were developed in consultation with stakeholders. The objectives are broad, applicable State-wide and were identified by stakeholders as being of strategic importance to improved waste management throughout Tasmania:

- Improved Partnerships, Coordination and Planning
- Waste Avoidance and Sustainable Consumption
- Waste Minimisation and Resource Recovery
- Improved Regulation and Management of Residual Wastes
- Improved Data Collection and Management Systems
- Reduction of Greenhouse Gas Emissions

The key themes identified by stakeholders and listed in section 1.4 are encompassed within these broad objectives.

To achieve each objective, strategic actions are listed for consideration and incorporation into stakeholder action plans and activities for waste and resource management and to guide each of the stakeholder groups in identifying resource recovery, waste minimisation and management priorities.

Indicative performance measures are listed for each objective. These performance measures and others will be reviewed and put forward by the Waste Advisory Committee to be used to monitor success in achieving the objectives.
5.1 Improved Partnerships, Coordination and Planning

Effective waste and resource management requires coordinated planning and action at national, state, regional and local levels. There has been an increase in collaborative waste management and resource recovery programs coordinated between State Government, Local Government and Industry and the establishment of a number of working groups and advisory committees over recent years. Whilst these arrangements resulted in an enhancement in the coordination of waste and resource management, there is a need to establish an improved structural framework for all stakeholders to work more effectively together.

To meet this need and to facilitate the successful implementation of this Strategy, a cross-sectoral Waste Advisory Committee will be established.

The Waste Advisory Committee

The Waste Advisory Committee will be established and administered by the Environment Protection Authority and will comprise members with interests, skills and knowledge in waste management and resource recovery issues.

The Terms of Reference for the Waste Advisory Committee is included in Appendix B of this Strategy, detailing the roles and governance structure of the Committee. Some of those roles include:

- Oversight of the implementation of the Strategy;
- Providing recommendations with respect to suitable funding mechanism(s) to deliver the Strategy;
- Providing recommendations on priority areas in waste and resource management;
- Facilitating and seeking consensus amongst stakeholders on appropriate waste programs and initiatives for Tasmania; and
- Conducting annual reviews of achievements against the objectives of the Strategy and reporting on progress on the delivery of the Strategy.

5.1.1 Strategic Actions

<table>
<thead>
<tr>
<th>STRATEGIC ACTION</th>
<th>RELEVANT TO:</th>
</tr>
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<tbody>
<tr>
<td>Establish a Waste Advisory Committee in accordance with the Terms of Reference in this Strategy.</td>
<td>Environment Protection Authority</td>
</tr>
<tr>
<td>Investigate options for, and make recommendations with respect to suitable funding mechanism(s) to deliver the Strategy and supporting programs and initiatives.</td>
<td>Waste Advisory Committee</td>
</tr>
<tr>
<td>Establish funding mechanism(s) to deliver the Strategy and supporting programs and initiatives.</td>
<td>State Government, Local Government</td>
</tr>
<tr>
<td>Provide recommendations for an education plan to outline and target the specific education needs, communication strategies and desired outcomes of each sector in delivering this Strategy.</td>
<td>Waste Advisory Committee</td>
</tr>
</tbody>
</table>
### 5.1.2 Performance Measures

- Establishment and operation of the Waste Advisory Committee
- Development and implementation of Action Plans, developed by State Government and Local Government to deliver the Strategy
- Partnerships established in waste and resource management programs
- Annual reports produced by the Waste Advisory Committee detailing implementation of the Strategy.
5.2 Waste Avoidance and Sustainable Consumption

Participating in waste avoidance programs and adopting sustainable consumption practices and behaviours offer the best opportunities for improved environmental, social and economic outcomes for Tasmania.

By reducing the overall volume of waste generated through smarter business (in commercial business, industry, not-for-profit and community organisations and government), and through eco-efficiency resource management, and through the establishment and maximisation of waste avoidance programs, our ‘waste footprint’ can be reduced.

5.2.1 Strategic actions

<table>
<thead>
<tr>
<th>STRATEGIC ACTION</th>
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<tbody>
<tr>
<td>Develop and deliver targeted education and awareness programs to promote informed and responsible sustainable consumption behaviours and purchasing decisions and ways to avoid waste.</td>
<td>State Government, Local Government, Industry Associations, Community organisations</td>
</tr>
<tr>
<td>Adopt and practice sustainable consumption behaviours and green purchasing policies.</td>
<td>State Government, Local Government, Industry Associations, Industry, Community organisations, the public</td>
</tr>
<tr>
<td>Promote and facilitate innovation in product design and manufacture that encourages product longevity and waste avoidance.</td>
<td>State Government, Local Government, Industry Associations, Industry</td>
</tr>
<tr>
<td>Develop and implement systems to encourage and provide incentives for waste avoidance in the broader community.</td>
<td>State Government, Local Government, Industry</td>
</tr>
</tbody>
</table>

5.2.2 Performance measures

- Reduction in the amount of waste per capita produced in Tasmania (\(=\) amount going to landfill + amount diverted from landfill).
- Number, and take up, of waste avoidance programs/incentives.
5.3 Waste Minimisation and Resource Recovery

Disposal of ‘waste’ to landfill often represents a lost opportunity for resource recovery. Although a resource recovery and recycling industry has been established in the State, it is a minor industry and not realised at its full potential. Currently there are lack of programs and education across the State and little economic incentive to recycle or recover resources. With appropriate programs, infrastructure and through smart, sustainable purchasing decisions and eco-efficiency in industry and business, resource recovery, re-use and recycling can become increasingly viable.

Additionally, resource recovery, re-use and recycling have a number of broader co-benefits relating to savings in energy, water, carbon dioxide emissions and raw materials.

Manufacturers are recognising their responsibilities throughout the total life-cycle of their products, involving the consideration to take-back and disposal options at the end of the product’s useful life. There are opportunities for the Tasmanian community to support and participate in these programs.

In order to reduce disposal of waste materials and resources to landfill it is important to have a viable and growing resource recovery industry. The establishment and management of sustainable resource recovery and recycling facilities sits within the private sector, community groups and relevant industry associations. However both State and Local Government have roles to play in assisting the industry on related issues and within their area of responsibility.

5.3.1 Strategic actions

<table>
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<tr>
<th>STRATEGIC ACTION</th>
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<tbody>
<tr>
<td>Develop and deliver educational programs, guidance and services to enable and promote waste minimisation, resource recovery and recycling.</td>
<td>State Government, Local Government, Industry Associations, Community organisations</td>
</tr>
<tr>
<td>Develop policies and deliver services and programs which stimulate investment in technologies, facilities and systems to promote resource recovery and reduce the disposal of resources to landfill.</td>
<td>State Government, Local Government, Industry, Industry Associations</td>
</tr>
<tr>
<td>Develop economic and legislated instruments to reduce waste generation and divert waste from landfill.</td>
<td>State and Local Government</td>
</tr>
<tr>
<td>Where appropriate, require industries and major new developments to develop Waste Minimisation and Resource Recovery Plans.</td>
<td>State Government, Local Government</td>
</tr>
<tr>
<td>Develop collaborative strategies with the Construction &amp; Demolition and Commercial &amp; Industrial sectors to reduce the amount of waste deposited to landfill from these sectors.</td>
<td>State Government, Local Government, Industry Associations, Industry</td>
</tr>
<tr>
<td>Create and support local markets for resource recovery through implementation of appropriate purchasing practices.</td>
<td>State Government, Local Government, Industry Associations, Industry, Community organisations, the public</td>
</tr>
<tr>
<td>Undertake relevant market research to identify suitable opportunities for local development (e.g. alternative treatment technologies) and improvement/extension of existing services and facilities.</td>
<td>State Government, Local Government, Industry, Industry Associations</td>
</tr>
</tbody>
</table>
### 5.3.2 Performance measures

- Increase in amount of waste diverted from landfill.
- Recycling rates for core recyclables - plastics, glass, paper and cardboard etc.
- Resource recovery rates.
- % participation in resource recovery programs.
5.4 Improved Regulation and Management of Residual Waste

Where waste disposal cannot be avoided, there are ways to improve the standards and practices of residual waste management to reduce the environmental impact. To improve residual waste management and to achieve better environmental outcomes for Tasmania, the regulation of waste management activities and enforcement action for unacceptable waste management practices requires a consistent and clear approach. The regulatory environment can also support and reward businesses committed to sustainable resource management.

5.4.1 Strategic actions

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<tr>
<th>STRATEGIC ACTION</th>
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<tbody>
<tr>
<td>Identify priority areas for improved waste management practices</td>
<td>Waste Advisory Committee, State Government, Local Government, Industry Associations, Industry</td>
</tr>
<tr>
<td>Develop and implement waste-specific, industry-specific, and/or region-specific guidelines, policies, strategies and action plans to employ best practice management practices for residual wastes.</td>
<td>State Government, Local Government, Industry Associations, Industry</td>
</tr>
<tr>
<td>Facilitate the development of infrastructure and best practice facilities to meet Tasmania’s waste &amp; resource management needs.</td>
<td>State Government, Local Government, Industry</td>
</tr>
<tr>
<td>Strengthen regulatory systems and employ improved mechanisms to identify and appropriately investigate non-compliant waste practices.</td>
<td>State Government, Local Government</td>
</tr>
<tr>
<td>Employ best practice waste management for all activities</td>
<td>State Government, Local Government, Industry Associations, Industry, Community organisations, the public</td>
</tr>
<tr>
<td>Proactively engage industry and improve regulatory systems to improve waste management standards</td>
<td>State Government</td>
</tr>
<tr>
<td>Reward businesses committed to sustainable resource management and improved environmental outcomes</td>
<td>State Government, Local Government</td>
</tr>
<tr>
<td>Support and facilitate range of national programs for waste such as the Product Stewardship Arrangements for Waste Oil and for End-of-Life Tyres.</td>
<td>State Government, Local Government, Industry Associations, Industry, Community organisations, the public</td>
</tr>
</tbody>
</table>

5.4.2 Performance measures

- All Tasmanian landfills operating in accordance with the Landfill Sustainability Guide 2006.
- Implementation of the Controlled Waste Tracking System.
- Establishment of improved infrastructure for the management of controlled waste.
- Number of waste management improvement programs developed and implemented.
- Best practice guidelines produced for priority waste management areas.
5.5 Data Collection and Management Systems

A key objective of the Strategy is to collect reliable and accurate data to support informed decision making and planning processes and progress towards the other Strategy objectives. A consistent and coordinated approach to data collection will allow better characterisation and classification of the waste stream, the amount of waste generated, waste diverted from landfill, resources recovered and materials recycled in the State to better target waste prevention strategies, and optimise recovery opportunities.

Improved data collection and data management systems will provide a means to measure the progress of initiatives and actions designed to meet the objectives and enable meaningful, achievable and realistic targets to be set. Targets will provide both a goal and a measurement of success and are critical in assessing the success of implementing the Tasmanian Waste and Resource Management Strategy.

The Waste Advisory Committee will review the data collected, and further stakeholder consultation and input will be sought in the establishment of waste reduction targets as the Strategy evolves.

5.5.1 Strategic Actions

<table>
<thead>
<tr>
<th>STRATEGIC ACTION</th>
<th>RELEVANT TO:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide recommendations for a coordinated approach &amp; systems for data collection</td>
<td>Waste Advisory Committee</td>
</tr>
<tr>
<td>and management, setting targets, measuring performance &amp; public reporting</td>
<td></td>
</tr>
<tr>
<td>Establish a coordinated approach &amp; implement systems for data collection</td>
<td>State Government, Local Government</td>
</tr>
<tr>
<td>and management, setting targets, measuring performance &amp; public reporting</td>
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</tr>
<tr>
<td>Facilitate and regulate relevant data collection from industry.</td>
<td>State Government, Local Government</td>
</tr>
<tr>
<td>Review data after a 3-year collection cycle and establish a timeline for target</td>
<td>Waste Advisory Committee</td>
</tr>
<tr>
<td>setting and development of performance measures in consultation with stakeholders.</td>
<td></td>
</tr>
<tr>
<td>Continue to participate in and support national data collection systems and</td>
<td>State Government, Local Government,</td>
</tr>
<tr>
<td>utilise results for waste and resource management planning.</td>
<td>Industry Associations, Industry,</td>
</tr>
<tr>
<td></td>
<td>Community organisations, the public</td>
</tr>
</tbody>
</table>

5.5.2 Performance measures

- Uptake of credible stakeholder endorsed data collection and management system(s).
- Data available to support the performance measures in the Strategy.
- Waste Advisory Committee sets targets by end 2012.
5.6 **Reduction of Greenhouse Gas Emissions**

Greenhouse gases such as methane and carbon dioxide result from the decomposition of biodegradable waste, and contribute to the global issue of climate change. Emissions from waste (landfills, wastewater treatment and fuel combustion) directly contribute about 4% of Tasmania’s greenhouse gas emissions. There are a number of landfills within Tasmania that have methane gas capture and electricity generation systems. However there is more that can be done in other areas and improved waste management and an increase in resource recovery can contribute to reducing greenhouse gas emissions.

The State Government has committed to reducing the State’s greenhouse gas emissions by 60% by 2050 from 1990 levels and there is an Immediate Actions Program under development to reduce the Government’s emissions. These commitments will have policy and behavioural implications in the wider community and in waste and resource management.

The Tasmanian Climate Action Council and the Tasmanian Climate Change Office have also been established to assist the State meet its obligations. In addition there is a Statewide Partnership Agreement on Climate Change which the State Government and all 29 Councils have signed. The Department of Environment, Parks, Heritage and the Arts is developing a Greenhouse Gas Emissions Reduction Plan, and regional authorities and a number of local government authorities and industries have also made positive steps in addressing climate change issues.

### 5.6.1 Strategic Actions

<table>
<thead>
<tr>
<th>STRATEGIC ACTION</th>
<th>RELEVANT TO:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop, participate in and support national, State and local schemes and programs that lead to a reduction in greenhouse gas emissions through improved waste management and enhance resource recovery.</td>
<td>State Government, Local Government, Industry Associations, Industry, Community organisations, the public</td>
</tr>
<tr>
<td>Review and amend procurement policies to ensure waste reduction and climate change considerations are incorporated into purchasing decisions</td>
<td>State Government, Local Government, Industry Associations, Industry, Community organisations, the public</td>
</tr>
<tr>
<td>Review waste management practices that generate greenhouse gas emissions and develop waste minimisation and management plans to reduce emissions.</td>
<td>State Government, Local Government, Industry Associations, Industry, Community organisations, the public</td>
</tr>
<tr>
<td>Increase the diversion of organic (green) waste from landfill and develop policies for alternative management of organic wastes</td>
<td>State Government, Local Government</td>
</tr>
</tbody>
</table>

### 5.6.2 Performance measures

- Development of emission reduction plans and policies
- % participation in emission reduction schemes
- Reducing trend of greenhouse gas emissions from waste
- Increasing trend of diversion of organic waste from landfill
6 Review Period

The Strategy will be monitored and updated as necessary as part of an ongoing annual evaluation process undertaken by the Waste Advisory Committee. Progress will be reported in the Environment Protection Authority Annual Report which will be tabled in Parliament. The Strategy will be reviewed in full after 3 years. Stakeholders will continue to be engaged during the implementation, review and update of the Strategy.
APPENDIX A

Roles and Responsibilities in Implementing the Tasmanian Waste & Resource Management Strategy

Waste Advisory Committee
- oversee & engage with all stakeholders on the implementation of the Strategy
- investigate options for, and make recommendations with respect to suitable funding mechanism(s) to deliver the Strategy and supporting programs and initiatives.
- provide recommendations to State Govt on any gaps in legislation & policy in waste & resource recovery
- provide advice to stakeholders on priority areas requiring investigation, program development, and/or on any gaps in educational material and/or guidance documents in order to achieve the objectives of the Strategy
- work collaboratively & share information with stakeholders to ensure strategic initiatives are consistent across Tasmania
- assist in coordinating waste & resource management activities
- assist in awareness & education programs across Tasmania
- as data becomes available, work with stakeholders to develop waste reduction goals & targets
- undertake reviews and produce annual reports on the progress & achievements of the Strategy

State Government
- provide the regulatory & policy framework for effective waste management & resource recovery across Tasmania
- ensure adverse environmental impacts arising from the generation & management of waste are minimised and/or appropriately managed
- improve consistency & certainty in the regulation of waste practices & facilities
- develop cooperative partnerships across all levels of government, business & the community to better address waste & resource management & to implement initiatives
- provide industry & Local Government with clear guidance on standards & planning options for future waste management
- encourage and implement sustainable construction, development & product design to minimise waste
- provide advisory & educational services & engage with industry & the community to increase awareness of waste issues & implementation of sustainable behaviours
- develop Action plans for waste reduction, reuse & recycling programs, and waste-specific strategies for priority waste streams
- represent Tasmanian interests on national waste issues
- develop & implement waste management plans for government business
- provide leadership to regional waste groups, industry & the wider community
- assist development of viable long-term markets for recovered resources
- promote the development of infrastructure and best practice facilities to meet Tasmania’s waste & resource management needs
- develop an appropriate body of information & data on waste & recycling issues & disseminate to stakeholders
- as data becomes available, work with stakeholders to develop waste reduction goals & targets
Local Govt & Regions

- implement regional waste management strategies in line with the objectives of the Tasmanian Strategy
- ensure adverse environmental impacts arising from the generation & management of waste are minimised and/or appropriately managed
- develop cooperative partnerships across all levels of government, business & the community to better address waste & resource management & to implement initiatives
- provide appropriate information regarding waste & recycling to the wider community
- provide environmentally, economically & socially sustainable waste & recycling services to local communities
- encourage and implement sustainable construction, development & product design to minimise waste
- provide advisory & educational services & engage with industry & the community to increase awareness of waste issues & implementation of sustainable behaviours
- develop Action plans for waste reduction, reuse & recycling programs, and waste-specific or region-specific strategies for priority waste streams
- develop & implement waste management plans for government business
- establish data collection systems to accurately report on the amount, source & type of waste & recyclables generated
- as data becomes available, work with stakeholders to develop waste reduction goals & targets

Industry

- develop waste management plans & implement improved waste management practices in business
- work with State & Local Government & the community to deliver better waste management outcomes
- ensure adverse environmental impacts arising from the generation & management of waste are minimised and/or appropriately managed
- implement sustainable construction, development & product design to minimise waste
- engage with industry association programs designed to reduce waste generation
- investigate opportunities for implementation of eco-design & cleaner production initiatives
- implement appropriate resource-efficiency programs
- work with the waste collection & disposal industry to develop practical, cost-effective applications for recycling & treatment of waste.
- establish data collection systems to accurately report on the amount, source & type of waste & recyclables generated
- as data becomes available, work with stakeholders to develop waste reduction goals & targets

Community

- avoid generating waste wherever possible, apply the waste management hierarchy
- manage & dispose of wastes appropriately
- change consumption behaviours that adversely affect the environment and a sustainable lifestyle
- engage in community efforts to implement sustainable behaviours
- seek information & employ sustainable purchasing decisions to reduce environmental impacts
- participate in waste avoidance & reduction, recycling & reuse schemes wherever available
APPENDIX B

Terms of Reference of the Waste Advisory Committee

1 Introduction

A Waste Advisory Committee is to be established to ensure the successful implementation of the Tasmanian Waste and Resource Management Strategy and to facilitate partnerships and collaborative efforts in waste and resource management.

The Tasmanian Waste and Resource Management Strategy (the Strategy) provides a framework and over-arching guidance for the coordinated management and delivery of state-wide, regional and local waste avoidance, reduction and resource recovery initiatives, practices and services. The Strategy is designed to guide waste management programs and practices to meet current needs, to lay the foundations for longer term waste management planning and to achieve improved environmental outcomes.

The key roles and objectives of the Waste Advisory Committee are guided by the principles and broad objectives of the Strategy. The objectives of the Strategy, listed below, were identified by stakeholders as being of strategic importance to improved waste management throughout Tasmania:

- Improved Partnerships, Coordination and Planning
- Waste Avoidance and Sustainable Consumption
- Waste Minimisation and Resource Recovery
- Improved Regulation and Management of Residual Wastes
- Improved Data Collection and Management Systems
- Reduction of Greenhouse Gas Emissions

2 Roles and Objectives of the Waste Advisory Committee

The principle role of the Waste Advisory Committee is to oversee and ensure the successful implementation of the Tasmanian Waste and Resource Management Strategy.

More specific roles are to:

- As a priority action, investigate options and provide recommendations for funding mechanism(s) to deliver the Tasmanian Waste and Resource Management Strategy and supporting programs and initiatives.
- Facilitate collaborative and joint programs and initiatives in waste management, resource recovery and waste minimisation between stakeholder groups to ensure strategic waste initiatives are consistent across Tasmania.
- Identify and make recommendations on gaps in priority waste and resource management policy or programs.
- Advise stakeholders as necessary on improvements to waste management practices and any gaps in educational material and/or guidance documents.
- Establish a coordinated approach & implement systems for data collection and management, setting targets, measuring performance & public reporting.
- Review data after a 3-year collection cycle and establish a timeline for target setting and development of performance measures in consultation with stakeholders.
- Conduct annual reviews of achievements against the objectives of the Strategy and report on progress on the delivery of the Strategy to the Environment Protection.
Authority and to all stakeholders through the Environment Protection Authority annual report.

3 Governance

The Minister for Environment, Parks, Heritage and the Arts has requested that the Environment Protection Authority Board establish the Waste Advisory Committee. The Waste Advisory Committee is to report to the Environment Protection Authority Board and provide recommendations on key objectives as detailed in these Terms of Reference.

Executive Support to the Waste Advisory Committee will be provided by the Environment Protection Authority.

4 Membership

The Waste Advisory Committee will be chaired by the Chair of the EPA Board, who will be a non-voting, independent Chair. The Committee will comprise seven additional members.

Members shall have the appropriate skills, experience, understanding and/or interest with respect to waste and resource management issues and needs in the State. Appointment of members will be on this criteria basis, reflecting the skills and knowledge but broad representation from relevant sectors will be sought as follows:

- Two representatives from State Government,
- One representative from each of the three local government regions in the State,
- One representative from industry, and
- One representative from a community-based group

Membership shall be on a three-yearly basis with the ability for members to serve a consecutive three years, and for a maximum of two terms.

Proxy delegates may be nominated from time to time if members cannot attend a meeting.

5 Meetings

The Waste Advisory Committee will need to establish its own meeting schedule to fulfil its functions, but would be expected to meet at least three times a year.

The Waste Advisory Committee is to keep meeting minutes and record any decisions or recommendations.