



IS WASTE MANAGEMENT AN 'ESSENTIAL SERVICE'?

POSITION PAPER

PREPARED BY THE



MUNICIPAL WASTE ADVISORY COUNCIL
"Getting the Environment Right"

December 2010

Status of this Paper

This Position Paper has been prepared through the Municipal Waste Advisory Council (MWAC) for the Western Australian Local Government Association (WALGA). MWAC is a standing committee of WALGA, with delegated authority to represent the Association in all matters relating to solid waste management. MWAC's membership includes the major Regional Councils (waste management). The Regional Council members of MWAC include the Eastern Metropolitan Regional Council, Mandarie Regional Council, Southern Metropolitan Regional Council, Rivers Metropolitan Regional Council, Western Metropolitan Regional Council and the City of Geraldton-Greenough. This makes MWAC a unique forum through which all the major Local Government waste management organisations cooperate. This Position Paper therefore represents the consolidated view of Western Australian Local Governments. However, individual Local Governments and Regional Councils may have views that differ from the positions taken here.

The Municipal Waste Advisory Council's member organisations are:

Eastern Metropolitan Regional Council
City of Geraldton-Greenough
Mandarie Regional Council
Rivers Regional Council
Southern Metropolitan Regional Council
Western Australian Local Government Association
Western Metropolitan Regional Council

EXECUTIVE SUMMARY

The term 'essential service' is often applied to waste management activities by representatives from Local Government and the waste industry although this title is not reflected officially in state or federal government policy. This Position Paper illustrates that the term 'essential service' is ambiguous, and there appears to be no consistency in regard to how a service is classified as such in various state and federal government policies.

'Essential services legislation' in various Australian states identify a number of services considered to be 'essential', but as this legislation is concerned mainly with the protection of these services in the case of industrial action, it has been demonstrated that the pursuit of similar legislation in Western Australia will not adequately address the concerns of the waste industry or Local Government and Regional Councils in particular.

The primary aim of the *Waste Avoidance and Resource Recovery Act 2007* is to 'contribute to sustainability, and the protection of human health and the environment'. The Act outlines that Local Governments are responsible for the collection of 'local government waste'. In practice, many Local Governments are taking responsibility for a far greater range of materials than they are legally obliged to.

Local Governments and Regional Councils face a number of challenges in providing waste management services to their communities. Despite the social, environmental and economic benefits of these services, a major concern of Local Governments is the impact of outside forces on the operation of waste services. Many believe that formal recognition of waste services as an 'essential service' will better manage these problems. As the Position Paper outlines, these concerns include:

- The lack of consideration of waste management infrastructure and services in planning.
- Governance arrangements at the State Government level.
- The ability of Local Governments and Regional Councils to provide and maintain expensive infrastructure.
- The lack of consideration of waste services in emergency management and contingency planning (to ensure continuity of service).
- The potential impacts on waste services due to economic crises or market failure.

As 'essential service' appears to be a subjective term, the recognition of waste services as such by State Government bodies may not achieve the status deemed necessary to solve these issues. It is recommended that the Municipal Waste Advisory Council (MWAC) target relevant State Government agencies in the areas of planning, funding and contingency planning to ensure continuity of service, and recognition of waste services at both government and community levels.

As this Position Paper outlines, due to a lack of knowledge of waste management services, waste management infrastructure has not been included in State Government strategic plans. Waste management is also not considered in the early scoping of residential developments. Local Governments and Regional Councils also find that increasing residential encroachment on buffers and delays to the approvals process also have significant impacts on their ability to provide these services.

Raising the profile of waste management services at government and community levels could also lead to more consideration of waste services in emergency management and contingency planning as well as funding of waste management activities. The Perth Storm in March 2010 highlighted how important it is to have a rapid, coordinated response to such events, and what role waste

management, and in particular waste disposal, has to play. A better understanding of the value of waste management services could also lead to the inclusion of this infrastructure in various government financial grants schemes, as well as potential business partnerships.

This Position Paper highlights how waste management services are significant on a number of levels. Due to the ambiguity of the term 'essential service', and the negative connotations connected to 'essential services *legislation*', it has been suggested that the pursuit of recognition for waste management services as 'essential' will not address the current challenges facing Local Government and Regional Councils. This Position Paper makes a number of recommendations in regard to what actions MWAC can make in order to resolve the issues of planning, financial partnerships and ensuring the continuity of service.

SUMMARY OF RECOMMENDATIONS

Recommendation

That 'essential services *legislation*' – as enacted in other states – should not be pursued in the process of forwarding the case for greater recognition of waste management services.

Recommendation

That MWAC engage with the Western Australian Planning Commission (WAPC) in order to ensure adequate consultation of Local Governments and Regional Councils in regard to the planning of waste services.

Recommendation

That MWAC engage with the Western Australian Planning Commission (WAPC) in order to increase awareness of issues such as residential encroachment on buffers and delays in planning approval of new infrastructure.

Recommendation

That MWAC engage with the Department of Planning to ensure greater consideration of waste management infrastructure in the development of the State Planning Strategy.

Recommendation

That MWAC continue to advocate for the inclusion of waste management in the allocations of the Federal Assistance Grants for Local Government.

Recommendation

That MWAC undertake research into the funding options for Local Government waste management activities in Western Australia.

Recommendation

That MWAC work with the State and Federal governments, along with Local Government, to assist with the consistent collection of data.

Recommendation

That MWAC engage with the Fire and Emergency Services Authority (FESA) and other relevant agencies to ensure that waste management is considered in contingency planning.

IS WASTE MANAGEMENT AN 'ESSENTIAL SERVICE'?

POSITION PAPER

CONTENTS

EXECUTIVE SUMMARY	3
SUMMARY OF RECOMMENDATIONS	5
1. INTRODUCTION.....	7
2. WHAT IS AN 'ESSENTIAL SERVICE'?.....	7
2.1 Defining what is an 'essential service'	8
2.2 'Essential services' criteria.....	9
2.3 'Essential services' in Western Australia	10
TABLE 1 Infrastructure Coordinating Committee Membership 2010	10
2.4 Essential Services legislation in Australia.....	11
3. WASTE MANAGEMENT AS AN 'ESSENTIAL SERVICE'	13
3.1 Why should waste services be considered an 'essential service'?	13
3.1.1 Social Impacts.....	15
3.1.2 Environmental Impacts	16
3.1.3 Economic Impacts	17
3.2 Why would the waste industry want recognition as an 'essential service'?.....	18
3.2.1 Planning	18
3.2.2 Governance	23
TABLE 2. Waste Governance Arrangements in other States	24
3.2.3 Funding	25
TABLE 3 Facilities in Western Australia as reported in the Zero Waste online survey 06/07	25
3.2.4 Contingency Planning	28
3.3 Implications of recognising waste management as an 'essential service'?.....	29
4. CONCLUSIONS.....	29
5. REFERENCES.....	31
APPENDIX 1 Structure of the Department of Planning	
APPENDIX 2 EPA Buffer Zones Table	
APPENDIX 3 MWAC Action Plan	

1. INTRODUCTION

The term 'essential service' is often applied to waste management activities by representatives from Local Government and the waste industry although this title is not reflected officially in state or federal government policy. The purpose of this Position Paper is to understand what an 'essential service' is, and what services are considered as such and why. This Position Paper aims to describe what an 'essential service' is; to ascertain whether or not waste management activities should be categorised as an essential service; and what this will mean for the industry. It is intended that the research and recommendations found within this document will be used to inform future actions to be undertaken by the Municipal Waste Advisory Council (MWAC).

Draft II of the Waste Strategy for Western Australia includes an action by the Waste Authority (the Authority) to consider the development of regulations that would see the collection and management of solid waste an essential service. In the Western Australian Local Government Association (WALGA) Submission to the draft Strategy, it was recommended that the Authority undertake a comprehensive investigation of the possible implications of these potential regulations. This Position Paper seeks to investigate the potential implications of essential services legislation for Local Government in particular, and whether or not this formal recognition will adequately address the concerns of Local Government and the waste industry.

The intended audience for this Position Paper is not limited to Local Government officers or councillors, but also includes representatives from state and federal government with the aim to highlight a number of areas of concern for Local Government in regard to the delivery of waste management services.

2. WHAT IS AN 'ESSENTIAL SERVICE'?

Summary

The term 'essential service' is hard to define. For the purpose of this Position Paper, an essential service is defined as a service formally recognised by government to be a basic right for its citizens and the failure to deliver this service would result in potential risks to the public. Therefore, the government will ensure that this service is considered a priority in strategic planning and is ultimately protected from disruption from outside sources such as natural and man-made disasters, market failure, economic pressures, community complaint and mismanagement.

There also appear to be four criteria which determine what services are classified as 'essential services', which are: 1) Historically this service has been considered an 'essential service'; 2) The service is, or was previously, owned by government; 3) The service has its own legislation; and, 4) The service is considered to be 'significant'.

'Essential services *legislation*' does exist in various states in Australia. This legislation is mainly intended to be used as a guide in cases of industrial action. As such, it is recommended that 'essential services *legislation*', as enacted in other states, not be pursued in the process of forwarding the case for greater recognition of waste management services.

2.1 Defining what is an 'essential service'

Finding a consistent definition of what constitutes an 'essential service' is not an easy task. The term can be used in casual conversation, but it is also a term used to define the basic services identified by government that cannot be interrupted, whether through an emergency or disaster situation or through mismanagement, although the definition of what this term encompasses is subjective. How these services have been identified, and why others do not fall into this category, is difficult to assess.

In his article 'When is a service an essential public service?' Steven Van de Walle (2009) comments that little is known about why some services are considered 'essential' while other apparently similar services are not. Van de Walle suggests that services are considered 'essential' where 'the lack of which for an individual or a group of individuals is to be considered as problematic and to be remedied by some type of (government?) intervention' (2009, p. 522). In other words, these are services that should be guaranteed to everyone.

An essential service is formally recognised as such through government action and policy. As the provision of public services are generally coordinated by national and state governments, it will be government which dictates what services have priority, especially in regard to the maintenance and protection of services in the face of disaster and emergency planning, economic pressures and market failure. This does not mean that these services are explicitly outlined in formal 'essential services legislation'. For example, in Australia, only Victoria and New South Wales have essential services legislation. In these states the legislation focuses largely on government-run services, while waste management (garbage collection) is only explicitly included in the New South Wales legislation (where the State Government has more control over these services). The legislation is mainly intended to be used as a guide in industrial action. This type of legislation is unlikely to meet the concerns of the waste industry in Western Australia, and Local Government in particular.

In South Australia and Victoria, the State Governments have set up Essential Services Commissions (ESC). The ESC in Victoria is the independent regulator of identified essential services such as electricity, gas, water and sewerage, ports, and rail freight industries (ESC Website 2010). The objective of the ESC is 'to promote the long term interests of Victorian consumers. It seeks to achieve this objective by having regard to the price, quality and reliability of essential services' (ESC Website 2010). The only rationale for the inclusion of the above services as 'essential' is that the services 'provided by these sectors are among the most important contributors to the social and economic wellbeing of all Victorians' (ESC Website 2010). The South Australian and Victorian Essential Services Commissions have a similar function to the Economic Regulation Authority in Western Australia.

In Western Australia, while 'essential service legislation' does not currently exist, it was acknowledged in the Parliamentary Inquiry into 'Municipal Waste Management in Western Australia' (2009, p. 90) that in Western Australia the *'Radiation Safety Act 1975*, the *Town Planning Regulations 1967* and the Hope Valley-Wattleup Redevelopment Regulations 2000 all refer to "essential services", but do not define them, although in the context it would appear to be referring to water, electricity, gas and possibly telephone services.' The recognition of these services as 'essential' is also reflected through their representation on various coordinating committees for state-wide planning and emergency management.

For the purpose of this Position Paper, an essential service is defined as a service formally recognised by government to be a basic right for its citizens and the failure to deliver this service would result in potential risks to the public. Therefore, the government will ensure that this service is considered a

priority in strategic planning and is ultimately protected from disruption from outside sources such as natural and man-made disasters, market failure, economic pressure, community complaint and mismanagement. This Position Paper will delve deeper into the concept of 'essential services', and investigate how these basic services are recognised by Australian state and federal governments. In addition, this Position Paper will explore whether or not waste management services should be recognised as an essential service by the Western Australian State Government, in particular, and why the waste industry would support this development.

2.2 'Essential services' criteria

The question remains why some services are considered 'essential' while others, such as waste services, are not. If the most common services from essential services legislation in NSW and Victoria, and the Essential Services Commission in Victoria and South Australia were grouped together, an essential service would generally refer to services such as electricity, gas, water and sewerage services. Although the Victorian Essential Services Commission argues that these services are amongst the most important contributors to the community, this does not mean that others are not. It would appear that these services have been classified as 'essential' due to historical arrangements. Traditionally, for example, many of these services have been owned or coordinated by state governments.

These services, in addition, are clearly defined in legislation. As such, their positions as important services to the community are confirmed. The role waste management services play in reducing potential public health and environmental risks are also outlined in legislation (for example, the *Waste Avoidance and Resource Recovery Act 2007*). This development, however, has not ensured the integration of these services with state government projects. In regard to public health matters, this lack of recognition is of particular concern.

There may be differences between what a government considers to be an essential service, and what the public understanding of essential services may be. Van de Walle (2009) carried out a survey of residents in 15 European countries to determine why some services are considered essential public services while others are not. The results showed that citizens consider some public and private services as essential, and believed that these services should be shielded from the full extent of market forces. The listed services, however, differed depending on what country was surveyed. For example, responses included services such as water, electricity and gas supply, but also included access to the collection of household rubbish, urban transport, telephone services, television and rail travel. Although not included in this list, with increased reliance on the internet (and fast internet in particular) as a form of communication and source of information, one may consider including internet access within this group of services. Van de Walle argues that attitudes 'towards public services and the values shaping these attitudes are an integral part of national administrative cultures, and national historical developments' (2009, p.541). In Australia, and Western Australia in particular, the services considered as 'essential' by government reflect historic administrative arrangements. Whether or not these arrangements adequately reflect current needs and concerns in regard to access to services is a question that should be addressed through further research.

There appear to be four criteria which determine what services are classified as 'essential services':

1. Historically this service has been considered as an 'essential service';
2. The service is, or was previously, owned by the Government;
3. The service has been defined in its own legislation; and

4. The service is considered to be 'significant'.

Arguably, the fourth point should be the main factor determining the classification of 'essential services'. The role that the Government plays in providing these services should not be a determining factor, but instead, whether or not this is a service whereby the failure to deliver would result in potential risks to the public.

2.3 'Essential services' in Western Australia

In Western Australia, 'essential services *legislation*' does not exist. Areas such as planning, emergency management and market regulation are coordinated by separate government ministers and committees. The Western Australian Planning Commission (WAPC), for example, coordinates the Infrastructure Coordinating Committee (ICC), whose appointed role is 'to coordinate and oversee the provision of major infrastructure, guided by and integrated with agreed plans and land development programs' (2010, p. 7). **Table 1** contains a list of those organisations and state government departments currently represented on the ICC. If this group represents those agencies and services the State Government considers as essential to the future planning of Western Australia's infrastructure, it can be concluded that transport, water and energy services (gas and electricity) are those services deemed most important by the State Government. The effectiveness of this group and its members in successfully integrating these various services into development plans through the ICC is something that should be explored further.

TABLE 1 Infrastructure Coordinating Committee Membership 2010

Represented Organisations/ Government Departments	
Western Australian Planning Commission	Department of Educational Services
Local Government Representative	Department of Regional Development & Lands
Professional Representative (Planning)	Department of Mining & Petroleum
<i>Office of Energy</i>	Department of Health
LandCorp	<i>Department of Water</i>
Department of Environment & Conservation	Department of Education
Department of Treasury & Finance	<i>Department of Transport</i>
Department of Planning	Department of Premier & Cabinet
Department of State Development	Department of Housing
<i>Water Corporation</i>	

Reference: Planning Western Australia Website 2010

Another example is the State Government's State Emergency Management Committee which, along with its various committees and councils, consists of similar representatives to the ICC. For example, various state government departments, the Water Corporation as well as Alinta Gas, Horizon and Western Power, Main Roads WA and Telstra. The membership of these groups is determined by the State Government.

According to the Dictionary of Terms of the Western Australia Natural Disaster Relief and Recovery Arrangements (WANDRAA), an 'essential public asset' is an asset of an eligible undertaking that in the judgement of the state concerned:

- a) is an integral and necessary part of the *state's* infrastructure; and
- b) would, if lost or damaged, severely disrupt the normal functioning of a community; and
- c) would, if lost or damaged, be restored or replaced as a matter of urgency.

(WANDRRA 2009)

An 'eligible undertaking', according to WANDRRA, is a body that:

- a) Is one of the following:
 - (i) a department or other agency of a *state* government; or
 - (ii) established by or under a law of a *state* for public purposes (for example, a local government body); and
- b) provides community, social or economic services free of charge or at a nominal charge well below the costs of production.

(WANDRRA 2009)

Although, following these definitions, Local Government waste management infrastructure should be considered as an 'essential public asset', the lack of representation of waste management on relevant natural disaster bodies does not reflect this. Another consideration is the possibility of loss or damage of this essential infrastructure when it is not a result of natural causes, and whether or not the loss of waste management infrastructure which will disrupt the normal functioning of a community is adequately protected.

In addition, the Economic Regulation Authority (ERA) of Western Australia 'regulates monopoly aspects of the gas, electricity and rail industries and licenses providers of gas, electricity and water services' (ERA Website 2010). The ERA also functions as an advisor to the State Government whereby they are required to undertake inquiries and research into issues flagged by the State Government. The services identified by the ERA (similar to those observed by the Essential Services Commission in South Australia and Victoria) are those businesses that operate as 'natural monopolies', traditionally owned and run by the Government itself.

2.4 Essential Services legislation in Australia

As discussed previously, only Victoria and NSW have such a thing as 'essential services legislation'. The NSW *Essential Services Act 1988* is an 'Act to protect the community from disruption to essential services; and for related purposes' (NSW Government 1988). **Box 1** outlines the definition of an 'essential service' as listed in the Legislation. The purpose of the Victorian *Essential Services Act 1958*, is to 'consolidate the Law making provision with respect to the Protection of the Community against the Interruption or Dislocation of Essential Services' (Victorian Government 1958).

Box 1 – Essential Services Legislation Definitions

Essential Services Act (NSW) 1988

4. Essential Services

- (1) For the purpose of this Act, a service is an essential service if it consists of any of the following:
- (a) the production, supply or distribution of any form of energy, power or fuel or of energy, power or fuel resources,
 - (b) the public transportation of persons or the transportation of freight (including the provision of rail infrastructure for those purposes),
 - (c) the provision of fire-fighting services,
 - (d) the provision of public health services (including hospital or medical services),
 - (e) the provision of ambulance services,
 - (f) the production, supply or distribution of pharmaceutical products,
 - (g) the provision of garbage, sanitary cleaning or sewerage services,
 - (h) the supply or distribution of water,
 - (i) the conduct of a welfare institution,
 - (j) the conduct of a prison,
 - (k) a service declared to be an essential service under subsection (2),
 - (l) a service comprising the supply of goods or services necessary for providing any service referred to in paragraphs

- (a)-(k).
(2) The Governor may, by order published in the Gazette, declare any service to be an essential service for the purposes of this Act.
(2A) To avoid doubt, the regulation of bulk water supply by the Water Administration Ministerial Corporation in the exercise of its right to the control, use and flow of water is capable of being declared to be an essential service for the purposes of this Act (...)

Essential Services Act (VIC) 1958

3. Definitions

In this Act unless inconsistent with the context or subject-matter essential service means any of the following services, namely –

- (a) transport;
- (b) fuel;
- (c) light;
- (d) power;
- (e) water;
- (f) sewerage;
- (g) any service (whether a type similar to the foregoing or not) specified from time to time by order of the Governor in Council published in the Government Gazette (...)

The services identified in this legislation are coordinated under separate government departments, by separate ministers. As the Legislation appears to be concerned mainly with the disruption of these services in the event of industrial action, generally the Minister or Premier with the power to declare a state of emergency will have the coordinating control as outlined in the Legislation.

The inclusion of 'garbage services' in the NSW legislation does not appear to have much impact on Local Government waste management activities. While waste management falls under the Minister for Environment, Local Government's role as a waste manager and their ability to charge for these services are outlined in the NSW *Local Government Act 1993* (pers comm 2010). It appears as though the *Essential Services Act 1988* does not have the power to directly influence government priorities in regard to strategic infrastructure planning or contingency planning. Another reason behind the lack of impact of the inclusion of 'garbage services' on Local Government waste management activities could also be because, in NSW, these services are limited to running waste collection contracts. The NSW Government provides the majority of the facilities, and the private sector the majority of the fleet.

In Western Australia, the protection of the community (and the economy) due to the potential disruption to services through industrial action is covered by the *Fair Work Act 2009*. Under this Federal Legislation, Fair Work Australia or the Minister for Employment and Workplace Relations can suspend or terminate protected industrial action if the action is threatening or would threaten to:

- Endanger the life, personal safety, health or welfare of the population or part of it, or
- Cause significant damage to the Australian economy or an important part of it.

(Commonwealth Government of Australia 2009)

As a result, it appears as though 'essential service legislation', as it is currently defined in Victorian and New South Wales, is not necessary in Western Australia as these provisions are covered in the *Fair Work Act 2009*.

Recommendation

That 'essential services legislation' – as enacted in other states – should not be pursued in the process of forwarding the case for greater recognition of waste management services.

3. WASTE MANAGEMENT AS AN 'ESSENTIAL SERVICE'

Summary

The delineation of responsibility for the delivery of various waste management services in Western Australia is outlined in the *Waste Avoidance and Resource Recovery Act 2007*. The benefits of providing these services are outlined in terms of limiting risk to public health and the environment.

Local Governments are faced with a number of challenges in providing these services, including complications arising from the lack of consideration of waste management services, and in particular waste management infrastructure, in state government planning processes and contingency planning. In addition, Local Governments and Regional Councils are constrained by their access to increased revenue sources which has become heightened due to the high costs associated with building waste management infrastructure.

3.1 Why should waste services be considered an 'essential service'?

The waste and recycling sector Australia-wide is estimated to be valued between \$7 billion and \$11.5 billion (EPHC 2010, p. 1). As outlined in the *National Waste Overview 2009*, waste and how it is managed has more far reaching benefits than just achieving environmental objectives and protecting public health: it plays a key role in the economy and directly contributes to jobs growth (2010, p. 1). In 2006-07, it has been estimated that Western Australians generated 5,247,000 tonnes of waste (2010, p. 2). Of this waste, approximately 1,708,000 tonnes were recycled, and 3,539,000 tonnes were sent to landfill (2010, pp. 7&10). In 2006, the EPHC estimated that 99 per cent of Australian households engaged in some form of recycling, indicating the level of community interest in providing these services (2010, p. 13).

In the past, the responsible collection and disposal of waste in Western Australia was outlined in the *Health Act 1911* due to the potential health risks of waste management in the control of public health. The *Environmental Protection Act 1986* also included provisions for the management of waste in order to 'minimise the generation of waste and its discharge into the environment' (EP Act 1986, p. 20). In 2008, the *Waste Avoidance and Resource Recovery Act (WARR Act) 2007* was introduced to consolidate existing provisions relating to waste management within one piece of legislation.

The primary objects of the WARR Act (2007, p. 5) are 'to contribute to sustainability, and the protection of human health and the environment' and the move towards a waste free society in Western Australia by –

- (a) *promoting the most efficient use of resources, including resource recovery and waste avoidance; and*
- (b) *reducing environmental harm, including pollution through waste; and*
- (c) *the consideration of resource management options against the following hierarchy –*
 - (i) *avoidance of unnecessary resource consumption;*
 - (ii) *resource recovery (including reuse, reprocessing, recycling and energy recovery);*
 - (iii) *disposal.*

As outlined in the WARR Act, "waste service" means

- (a) *the collection, transport, storage, treatment, processing, sorting, recycling or disposal of waste; or*

- (b) the provision of receptacles for the temporary deposit of waste; or*
- (c) the provision and management of waste facilities, machinery for the disposal of waste and processes for dealing with waste.*

The WARR Act outlines that Local Governments are responsible for the collection of 'local government waste' which means

- (a) waste from residential sources; and*
- (b) any other waste of a kind prescribed by the regulations for the purposes of this paragraph, but does not include sewerage or waste of a kind prescribed by the regulations as excluded for the purposes of this definition.*

Other provisions of the WARR Act include: Section 34 outlines the power of the CEO to make Local Government *and* industry report on compliance with the Waste Strategy. The WARR Act also includes provisions for Extended Producer Responsibility (EPR) schemes (Part 5), and also outlines waste provisions that can and should be included in local laws (Section 64). The enforcement of these provisions, as well as the object clause of the WARR Act, would go some way to raising the profile of waste services in Western Australia.

While the WARR Act provides clarity for Local Governments in regard to their responsibilities, and services such as recycling and resource recovery align with the Waste Authority's Draft II of the State Waste Strategy, the Legislation and Draft Strategy fail to identify the responsible body for other waste streams. The result is that discretionary services, such as recycling of commercial waste, will only be provided if a business or commercial service requests them from a contractor. In practice, many Local Governments are taking responsibility for a greater range of materials than they are legally obliged to. For example, in some areas Local Governments are the only service provider (this includes household waste and commercial waste).

Local Government waste management activities cover the collection, treatment and disposal of a large variety of materials within the Municipal Solid Waste (MSW) stream, including hazardous waste and e-Waste. **Box 2** outlines a number of hazardous wastes that Local Government have become responsible for. The Australian Bureau of Statistics (ABS 2009) estimates that the most common way households dispose of their hazardous waste is to throw it out with the usual household rubbish collection accounting for 82% of all households. It can be assumed that the majority of hazardous waste generated by households, therefore, will end up in landfill. The risks associated with this practice include potential groundwater pollution; the impact on the safety of the landfill especially for staff who are required to separate the waste (e.g. toxic fumes or the splashing of chemicals); and, the potential for gas bottles or chemicals to explode or ignite in collection trucks on the way to the landfill. The disposal of hazardous waste can also potentially pollute other waste streams resulting in staff time and resources utilised in order to separate the hazardous waste and clean up the pollution.

Many Local Governments have established programs for collecting and storing 'Household Hazardous Waste' (HHW). Although many Local Governments maintain that they cannot reasonably be expected to uphold their responsibilities for aggregating and storing hazardous waste unless other parties like industry and government take responsibility for disposal. This is because disposal can be expensive and the indefinite aggregation and storage of materials which are potentially explosive or flammable creates risks.

Box 2 – Local Government waste management activities – hazardous waste

'Household hazardous waste' (HHW)

HHW describes the chemicals and products used in and around the home that may be toxic, explosive, flammable or corrosive. A number of Local Governments in Western Australia provide permanent and/or temporary collection days for this waste. Examples include pesticides and herbicides, paint, acids and alkalis, gas bottles, batteries and various cleaning chemicals.

Batteries

Household batteries are the most common hazardous waste item disposed of in Australia, the majority of which end up in the municipal waste collection and are sent to landfill. The potential environmental impacts include contamination in landfill; interference with Alternative Waste Treatment (composting) facilities; and upstream environmental impacts associated with a failure to recycle the constituent materials from batteries. Many Local Governments encourage residents to recycle their batteries, and provide battery collection facilities in various locations.

e-Waste

The instances of e-waste disposal at landfills have increased (Townsend & Musson 2006, p. 298). There is concern that toxic chemicals will leach from these devices when disposed, including metals and metalloids (e.g. arsenic, cadmium, chromium, copper, lead, and mercury) and organic chemicals such as brominated flame retardants (2006, p. 299).

Many Local Governments and Regional Councils in WA collect e-waste, however the cost to recycle this material is substantial. The City of Bunbury (16,564 households within an area of 61.2km²), for example, has identified community concern and the need to provide a service for electronic waste recycling. The City is currently collecting approximately one sea container full of electronic waste every three weeks (85 tonnes per year) at a cost of \$52,000 per annum.

Asbestos

Illegally dumped asbestos and asbestos thrown out in kerbside collections can pose a health risk. Due to asbestos fibres being hazardous when inhaled, there is a risk to landfill workers and rubbish collection operators when asbestos products are incorrectly handled, removed or transported for disposal.

Waste management, and in particular waste disposal, has been highlighted as an area of concern when planning for an emergency. Recently, other positive outcomes (such as environment and sustainability) of waste disposal and resource recovery have overshadowed public health matters as concerns in regard to disease control have been addressed. Addressing public health concerns, however, will continue to be a major feature of waste management services, particularly in an emergency event when the disposal of waste requires urgent attention.

Although waste management is not often represented at State-run Emergency Management committees, waste disposal is identified as an important service in the aftermath of a disaster in Local Government Emergency Management Plans. For example, the City of Stirling's *Emergency Management Plan* lists waste disposal and collection within its 'Environmental Health Support Plan'. The aim of this plan is:

To detail the principal, public health and environmental details to be addressed during an emergency or within a disaster affected area.

To ensure adequate public health conditions are maintained and that the potential for the occurrence of disease is minimal (City of Stirling 2007, pp. 85-86).

3.1.1 Social Impacts

As discussed in the Productivity Commission's Inquiry Report into Waste Management, some of the social impacts of waste management can include the inconvenience to people living nearby due to

odour, traffic noise and the attraction of feral animals to the site (PC 2006, p. 96). The mismanagement of waste disposal can also have negative impacts on people's health especially the illegal dumping of toxic waste, in addition to the potential public health risks associated with inadequate waste disposal solutions.

In Western Australia, the *Health Act 1911* originally outlined Local Government responsibility for waste management on public health grounds. In the WARR Act, Local Governments are required to provide services for the 'purpose of protecting human health or the environment' (Part 6, Division 1, s.51). Local Government waste management services, in the form of the collection, treatment and disposal of rubbish, is one way that Local Government protects the health of the community.

Another way that Local Governments and Regional Councils are attempting to protect the public and the impact of waste on the community is through diverting waste from landfill. However, the costs of funding these initiatives can be expensive. The operating cost of Local Government waste management and related activities exceeds \$130 million per annum. Additionally, tens of millions of dollars of new capital is invested to meet increased demand and adopt new technologies. As a result, Local Government waste has been identified as the only waste stream to show a decrease in tonnes to landfill over the past few years. Despite an increase in population in Western Australia, according to 2006/07 figures, Local Government waste to landfill has decreased by approximately 1% per year since 1999/2000 (Cardno 2008).

Discussions on the proposed reform of remote Indigenous communities have involved conversations about correcting Indigenous disadvantage. One way of doing this is by connecting these communities to basic services to improve their quality of life. The 'National Partnership Agreement on Remote Indigenous Housing' outlines the basic 'Essential and Municipal Services' that need to be provided in order to achieve this, rubbish collection is one of these. **Box 3** outlines the social impact of waste management on the quality of life in developing countries and remote Indigenous communities in Australia.

Box 3 – Essential services and waste in developing countries

Studies into the improvement of services to the poor and marginalised in developing countries discuss services that are essential to the improvement of the quality of life for these people. In these communities 'open dumping is the most common method of waste disposal, resulting in the spread of disease, water and air pollution, and reductions in urban productivity' (Arlosoroff 1991, p. 492).

In Australia, recent discussions about service provision to remote Indigenous communities also involve the same rhetoric. The 'National Partnership Agreement on Remote Indigenous Housing' (COAG 2009, p. 5) describes 'essential and municipal services' as being 'power, water and sewerage operation and maintenance, road maintenance, waste disposal, landscaping and dust control, dog control, environmental health activities, and management of infrastructure and municipal services'. The purpose of this Agreement is to 'address overcrowding, homelessness, poor housing condition and severe housing shortage in remote Indigenous communities' (2009, p. 3).

The *National Indigenous Infrastructure Guide* (FaHCSIA 2010, p. 179) also states that '[e]ffective waste management is essential to minimise associated health and environmental risks' (2010, p. 179).

3.1.2 Environmental Impacts

The Productivity Commission (PC 2006, p. 96) lists a number of potential environmental risks due to the mismanagement of waste: '[l]andfills can leak polluted leachate into groundwater, emit greenhouse and other gases... Illegal dumping of waste is potentially hazardous to the environment and can be costly to remove. Littering is a public nuisance that can also kill or injure wildlife.' These impacts have

directly influenced government policy to pursue alternatives to landfill. The Western Australian Select Committee on Recycling and Waste Management's Report (1995, p.2) recommended that 'no new landfill sites should be established on the coastal sand plain because of their potential to pollute groundwater'. This recommendation has also motivated Local Governments to pursue alternatives to landfill. **Box 4** outlines the environmental benefits of alternatives to landfill as documented in the Victorian State Government's *Toward Zero Waste Strategy* (2005).

Box 4 – Environmental benefits (*Towards Zero Waste Strategy*)

In 2001, RMIT University indicated that recycling saves Victoria over 8000 megalitres of water per year – equivalent to the amount of water consumed by 22 million people in one day.

Greenhouse emissions rank highly among the projected environmental savings. Most overall greenhouse savings will occur thanks to better household recycling of organics and other materials, residual waste processing and waste reduction. Modelling indicates greenhouse benefits arising from the strategy will reach more than 3 million tonnes CO2 equivalent per year by the final year of its implementation...

Further environmental benefits include improvements in reduced air and water pollution and lowered resource impacts. These mainly arise through:

- Preventing putrescibles wastes such as green organics, paper and timber from entering landfills, thus avoiding emission of air and water-borne pollutants including leachate as materials breakdown.
- The manufacture of products such as metals, paper-cardboard, plastics and glass from recycled materials, requiring less energy, water and other resources than their equivalent production from virgin materials.
- Reduced wastage of raw materials and products, along with lower associated environmental impacts from their manufacture and disposal...

Taking into account the economic costs of implementation and ascribing financial values to environmental benefits, there is an estimated net benefit from the municipal sector alone valued at over \$400 million for the period of the strategy, or \$256 per household (State of Victoria 2005, p. 32).

There are a number of Alternative Waste Treatment (AWT) facilities in Western Australia, and most of these use biological technologies such as composting, anaerobic digestion or a combination of these (ASK Waste Management 2010, p. 7). These facilities have greatly reduced the volume of waste sent to landfill in the State (2010, p. 7). These large facilities, however, are expensive and are currently only available to service the Perth Metropolitan area due to financial costs and population.

In a recent study conducted WALGA in May/June 2010, 86 respondents, representing over 49 Local Governments and two regional groups, were asked to comment on what they considered to be the major emerging and current environmental issues facing Local Government. The top five issues were: 1) Climate Change; 2) Salinity; 3) Loss of Biodiversity; 4) Waste Management; and, 5) Water Management (WALGA 2010). In addition to these comments, respondents shared their frustration at the lack of leadership on these issues from State and Federal Government (WALGA 2010).

3.1.3 Economic Impacts

It has been estimated that in 2008, waste management and recycling directly employed almost 29,000 people and indirectly 24,308 people throughout Australia (EPHC 2010, p.1). It has been assumed that Western Australia makes up 10 per cent of the national total, indicating that the industry employs approximately 3,000 people (EUPA Training Council 2010, p. 16).

In the report, *Waste Industry Workforce Development Plan 2010*, the Electrical Utilities and Public Administration Training Council Inc. estimate that the size of the waste management industry in Western Australia and its contribution to the State's economy is \$620,000 annually (2010, p. 15). Waste management services play a significant role to the Western Australian economy, and in addition to associated support roles with Local Government, employ a large amount of people.

If waste services were discontinued there would be substantial environmental, social and economic impacts, in addition to public health concerns. These services should be protected from potential disruption such as economic impact, market disruptions, community pressure or residential encroachment. If waste services in Western Australia were given 'essential service' status by the State Government, it is expected that waste would be considered a State priority in regard to strategic infrastructure planning. It will also be expected that the waste industry would have a representative on planning bodies, and be considered in the planning of new residential and industrial developments.

3.2 Why would the waste industry want recognition as an 'essential service'?

The Parliamentary Inquiry Report into 'Municipal Waste Management in Western Australia' (2009, p. vi), recommended that 'the Government give consideration to the development of essential services legislation, and to incorporate waste collection and management in any definition of "essential services" included within such legislation'. The catalyst for this Inquiry was a petition signed by 56 residents regarding odour levels from the Southern Metropolitan Regional Council's (SMRC) Resource Recovery Centre in Canning Vale. As Barry Carbon, former Chair of the Waste Authority, states 'the Waste Authority believes that – this specifically relates to the SMRC – the capacity to turn off an essential service is something that should be done with an appropriate system of checks and balances' (2009, p. 88).

A major concern of Local Governments and the waste industry is the impact of outside forces on the operation of waste services. Many believe that formal recognition of waste services as an essential service will eradicate these problems. Concerns include:

- The lack of consideration of waste management infrastructure and services in planning.
- Governance arrangements at the State Government level.
- The ability of Local Governments and Regional Councils to provide expensive infrastructure.
- The lack consideration of waste services in emergency management and contingency planning.
- The potential impacts on waste services due to economic crises or market failure.

The importance of waste management services to the community is identified in the WARR Act. Unfortunately, this inherent value is not adequately reflected in practices carried out in the realms of planning, funding and contingency planning by the Western Australian State Government or the Federal Government.

3.2.1 Planning

As outlined in 'Appendix 2: Waste in Western Australia – additional data', of the Waste Authority's Draft II Waste Strategy for Western Australia

A crucial underpinning of modern waste management is the infrastructure needed for its collection, handling, processing and disposal. Waste infrastructure is expensive and is usually established by municipal authorities, even though private companies generate most of the material inputs. While waste infrastructure is essential, siting is often the subject of 'not in my backyard' disputes (Waste Authority 2010b, p.3).

As identified in the Report 'Municipal Waste Management in Western Australia' (2009, p.88), Local Government's decisions regarding suitable site selection for waste facilities are also 'often frustrated by the actions of external planning bodies that do not take waste management issues into account'. As discussed in the SMRC's Submission on the Inquiry into 'Municipal Waste Management in Western Australia' (2009, p. 12), waste management has slipped 'between the cracks' when it comes to the planning and development of residential areas. In regard to the development of new residential subdivisions in particular, waste has been forgotten. As the SMRC points out, the Western Australian Planning Commission (WAPC) is obliged to consult with relevant bodies when approving planning schemes, which includes consulting 'essential service' providers such as the Water Corporation, Alinta Gas, Western Power and the relevant Local Government. Currently, the WAPC is not required to consult with Regional Councils or the Waste Authority who would be the appropriate bodies to consult with on waste issues.

APPENDIX 1 outlines the structure of the Department of Planning and its relationship with the WAPC. WAPC Statutory Committees include the Statutory Planning Committee; Executive, Financial & Property Committee; Infrastructure Coordinating Committee; Sustainable Transport Committee; and Coastal Planning & Coordination Committee. As highlighted previously, there is currently a Local Government representative on the Infrastructure Coordinating Committee, as well as the WAPC. Whether or not these representatives are adequately aware of waste management issues is of concern.

Recommendation

That MWAC engage with the Western Australian Planning Commission (WAPC) in order to ensure adequate consultation of Local Governments and Regional Councils in regard to the planning of waste services.

Another concern is the re-zoning of areas around waste management facilities, and the increasing encroachment of residential developments on these facilities. **Appendix 2** outlines the buffer distances for waste management infrastructure as stated in the Western Australian Environmental Protection Agency's (EPA 2005) 'Guidance for the Assessment of Environmental Factors – Separation Distances between Industrial and Sensitive Land Uses.' With residential development come community complaints. **Box 5** outlines an example from the Mindarie Regional Council (MRC) of residential encroachment around their site. It is hoped that if waste management services are recognised as an essential service, this will confirm the role of these services and facilities within the community. Discussions will then be 'around what to do to minimise the impact of waste management and not to do with whether we should be there in the first place' (Pers comm. 2010).

Box 5 – Residential encroachment (Mindarie Regional Council, Personal Communication)

The MRC site has had residential suburbs (Kinross to the south and Clarkson to the north) develop around the site. With the residential development come community complaints. Although the site was there first, and buffer zones are well controlled at this world class landfill facility, there are still complaints from the community.

The biggest factor seems to be their size. It is assumed that because they represent a large activity in the area, the site is

automatically presumed to be the source of all dust complaints, even when there is significant land development going on all around them. As residential expansion continues to grow, it can only be expected that community pressure would also increase.

The approvals process is also of concern to Local Governments. For some Local Governments in Western Australia, approvals for new sites (for example, transfer stations) have taken up to five years. This delay will impact how quickly sites can be prepared and may mean significant delay in implementing any landfill site consolidation. The implementation of AWT facilities can take between 5 and 7 years, and often with contracts for at least 20 years which are required to secure the infrastructure. This has the potential to impact on Local Governments looking for alternatives to landfill. This lack of understanding of waste management services within the State Government also often impacts on the desirability of investing in this infrastructure. This is often due to the perceived risk involved in investing in these ventures surrounded by so much uncertainty.

Recommendation

That MWAC engage with the Western Australian Planning Commission (WAPC) in order to increase awareness of issues such as residential encroachment on buffers and delays in planning approval of new infrastructure.

Local Governments and the waste industry are becoming increasingly aware of a lack of strategic planning for waste services across the State. For example, the State Government's 'Directions 2031: Draft Spatial Framework for Perth and Peel' aims to plan appropriately for projected growth over the next 20 years:

It is estimated that by 2031, future census year, the Perth and Peel region will need 328,000 more dwellings to accommodate an additional 556,000 residents. Our challenge is to find room for this new growth while preserving our unique local environments and valued quality of life... It is also critical that the provision of infrastructure is fully integrated with land use planning and development (2009, p. iii).

The document does not mention the planning of waste services which are certain to be impacted by the projected growth of the metropolitan area. In his study into the potential carrying capacity of Australia, John Glasson (1997, p.219) argues that the impact of future population growth on the environment should also be considered, in particular, that fewer people would 'reduce the amount of waste to dispose of, and there would be less stress on the capacity of specific receiving environments.' These considerations are also not taken into account.

The absence of planning for waste is also evident in the State Government's 'Industrial Land Strategy 2009 Perth and Peel', a collaborative effort between the Department of Planning (DoP), LandCorp, the Department of Environment and Conservation (DEC) and the Department of State Development (DSD). It is intended that the Strategy will address the following:

- Identify the areas, type and locations of general and light industrial land required over the next 20 years.
- Review the industrial land development program and identify possible extension opportunities.
- Identify and evaluate the suitability of locations for new general and light industrial estates.
- Develop a strategy to facilitate the delivery of general and light industrial land and assist in the restoration of the Government's long-term general and light industrial landbank (2010, p. v).

Strategic planning for waste infrastructure has not been considered in this document. This includes provisions for municipal solid waste and commercial and industrial waste. Within the document it has been identified that '[e]xisting industrial estates need to be protected from the increasing encroachment for non-industrial uses in industrial zoned areas and residential encroachment' (2010, p. vii). This consideration is also very relevant to the waste industry and it is a concern that it does not appear on the State Government's radar.

The Department of Planning is also developing a State Planning Strategy 2010. A precursor to this Strategy is the development of a number of Discussion Papers covering the provision of Energy, Food & Fisheries, Housing, Industry, Social Infrastructure, Tourism, Water and Physical Infrastructure within planning. Waste Management, and in particular planning for waste infrastructure, has not been adequately covered in any of these Discussion Papers.

Recommendation

That MWAC engage with the Department of Planning to ensure greater consideration of waste management infrastructure in the development of the State Planning Strategy.

Box 6 outlines the initial scoping of service delivery for Keralup, a proposed 4,000 hectare government-owned property, intended to house up to 90,000 residents. As the example shows, the service providers of water, sewerage, electrical, gas and communication services have not only been consulted on what infrastructure will be required to service this development, but also whether or not existing infrastructure in the area will be appropriate to manage the demand. A consideration of waste management services could have included access to service corridors, as well as consideration of proximity to transfer stations, and whether or not this infrastructure can cope with the increase in material.

Box 6 – Keralup Masterplan (Engineering considerations)

The 2007 Keralup Masterplan provides an overview of planning considerations for service delivery. An example of some of the consideration in regard to these services include

Water Supply

There is need for trunk service corridors, not only for Water Corporation assets but other service providers to be incorporated in and through development areas in the region. The main distributor road through Keralup would be a possible trunk services corridor... A proposed water trunk main of 750/900mm diameter is to be constructed to link the Karnup Reservoir to Golden Bay West at Keralup. The trunk Main will be installed in the Paganoni Road reserve, that will become the main access road into the Keralup "town centre". Parallel with the trunk main a 375 mm diameter pre distribution main is proposed. This main continues east from Pananoni Road to form part of the Keralup distribution ring main.

Sewerage

Development of the Keralup site in accordance with the Water Corporation Master Regional Plan is required and continued liaison with the Land Development Branch of the Water Corporation is essential for ordered development. Coordination of Water and Sewer Construction and works is desired for cost benefits and forward planning.

Electrical

Western Power's Kemerton to Kwinana 330 kV transmission line is located along the Eastern Boundary at Keralup... Western Power has advised this facility is not available for Keralup connection. There is an existing power supply at Paganoni Road (West of Keralup) that Western Power advises is a suitable supply for the initial stage of development.

Gas

The proposed route is similar to the initial water and sewerage connections, following Paganoni Road westward. Alinta Gas previously advised that depending on the rate of development and other gas factors an additional 150mm diameter pipeline may be required in the future.

Communications

There is no major network existing to cater for Keralup and Telstra, would require a capital contribution to install services.
(Taylor Burrell Burnett 2007, pp. 36-38)

Western Australia is not the only State with concerns about the lack of consideration of waste issues in State Government strategic planning. For example, in a letter to Queensland's Department of Infrastructure and Planning, the Waste Contractors and Recyclers Association of Queensland (WCRAQ) made a number of points in regard to the Minister's estimates of an additional 1700 new residents moving to South East Queensland weekly. The WCRAQ (2010) commented that over the next 10 years:

- An additional 240 waste transport specialist vehicles to manage this waste from these residents and businesses will be registered;
- Transport movements will increase by over 44% to move this waste and recyclables to the Ipswich corridor assets;
- The current transfer station infrastructure in the region cannot handle the expected increase in waste and is not located appropriate to future development approvals;
- If the existing landfill locations are not protected from residential and commercial development, and that adequate buffers provided in these expanding areas are not protected, assets in the South East will become compromised. If this occurs because of unplanned growth, the State will have major basic sanitation issues to manage and economic growth in the region will be compromised in the future.

A lack of consideration of waste management related concerns in regard to the planning of new developments (commercial and residential), the planning of waste infrastructure and strategic infrastructure planning by the State Government, indicates limited knowledge of waste management issues. **Box 7** is an example of the lack of understanding of these issues in regard to the planned extension of the Henderson Waste Recovery Park which is located in the 'Latitude 32' redevelopment area.

Box 7 – Landfill Planning (City of Cockburn example)

The City of Cockburn has a strategic plan to expand the operation at the Henderson Waste Recovery Park (HWRP) to accommodate and process commercial waste streams in order to divert waste away from landfill. Unfortunately, the project has faced a number of delays over more than a 4 year period due to uncertainties surrounding the future planning of the area and an apparent lack of understanding across various Government Departments on future waste management needs.

Of significance is the lack of clear land-use planning direction over the site and the contention that waste management cannot coexist in this landform. The City would contend that a properly managed and integrated waste management facility could be the benchmark development for this industrial precinct. A waste management facility that caters for all waste streams including Commercial and Industrial (C&I) and Construction and Demolition (C&D) wastes and which incorporates a range of technologies to separate, process and minimise waste is consistent with the Government's current stated direction. LandCorp however have developed a Planning Strategy with zones that significantly restrict the expansion of the HWRP. LandCorp have also proposed to establish an intermodal facility in close proximity to HWRP. Some of the options that are currently open for public comment completely cover the HWRP. The preferred model quarantines a significant portion of land on the east of the Site. Until this Intermodal Facility is finalised the City cannot proceed with any confidence to invest in technology.

The HWRP lined cells are ideally located in disused limestone quarries. The practical expansion of the facility is to the north toward another completed limestone quarry, however current zoning will not permit the Cockburn Cement land (General Industry) to be used as a Resource Recovery centre. It is the City's vision to develop RDF on the site that will comply with the DEC standards to power industry and wind/solar (thermal or PV) farms on the capped landfill cells to further enhance the renewable energy generated from the HWRP. The City believes that their current and planned uses for this site blend well with the existing and future zoning of the area should their land or additional adjacent land be rezoned to Resource Recovery.

It is expected that through formal recognition of the importance of waste management for Western

Australian communities in particular, planning issues will be improved. As a result, the construction of waste infrastructure will be seen as a State Government priority, the importance and value of which will be communicated through all government department and agencies responsible for the planning and approvals of planning developments throughout the State.

In the past, the Western Australian Government coordinated a cabinet committee to look into waste issues. The Cabinet Committee (Senior Officers) on Metropolitan Waste was active in the mid-1980s, with members including the Minister for Health (chair), Minister for Conservation and Environment, Minister for Water Resources, Minister for Planning, and representatives from the then Town Planning Commission, Local Government Department, the Health Department, the Water Authority and the Department of Conservation and Environment. During the Committee's existence, issues such as amendments to the *Health Act 1911*, the development of a Waste Strategy for Perth and the Government's policy on sewerage were discussed. Although no longer in existence, this committee shows that, at the time, it was considered important to have a high level committee to discuss waste management issues. The inclusion of health and planning representatives also indicates the importance of a cross-government approach to any strategic planning for waste management. The reinstatement of a similar committee could go some way to raise the profile of waste management services across government.

3.2.2 Governance

The WARR Act outlines the responsibility of the Waste Authority, and in particular its non-regulatory function, including

- Strategic policy and planning for the transition towards zero waste to landfill in Western Australia;
- The implementation of policies, plans and programs to achieve that transition;
- The administration of allocated funds raised through the collection of the landfill levy.

(Waste Authority 2010a, p. 12).

The Department of Environment and Conservation (DEC) provides support (executive and administrative) to the Waste Authority. In addition, the DEC 'is responsible for regulatory, compliance and enforcement function in relation to waste', while the Environmental Protection Agency's functions include the 'development of environmental protection policies and considering proposals for waste treatment facilities with the potential to have a significant environmental effect' (Waste Authority 2010a, p. 12). In Western Australia, waste management services come under the Environment portfolio.

A concern has been raised by the waste management industry over the potential for conflict of interest to arise in regard to the roles of the DEC and the Waste Authority. With the DEC involved in the policy formulation role (along with the Waste Authority) while also being the industry regulator, waste management operators are often in a position of asking advice of an advisory body that could potentially penalise them based on the information in this same query.

There is also a prevailing belief that Environment is not the appropriate portfolio for waste as the significance of these services reach beyond just environmental concerns. It has been suggested that through the creation of a 'waste' portfolio, waste management issues will be considered as a priority. Due to the size of many waste management operations, and the difficulty in the development of this infrastructure, it has also been suggested that the Minister responsible for waste should also be

involved in planning and/or business and commercial interests.

Before 1989, waste management was located within the Health portfolio and managed under the *Health Act 1911*. In 1994, State Government waste management functions were amalgamated with staff and resources from the Recycling Industries Unit of the Department of Commerce and Trade and the recycling section of the Department of Environmental Protection to form the short-lived Office of Waste Management (pers comm, 2010). Shortly afterwards the Office of Waste Management was incorporated into the Department of Environmental Protection as the Waste Management Division, where it has remained ever since.

Table 2 outlines the governance arrangements in other States throughout Australia. Waste across the country sits within an environment-related portfolio. The rates of diversion from landfill across the States, however, differ greatly, from 66 per cent diversion in South Australia to 33 per cent diversion in Western Australia (EPHC 2010, p. 5).

TABLE 2. Waste Governance Arrangements in other States

State	Minister	Department	Legislation
New South Wales	Minister for Climate Change & the Environment	Department of Environment, Climate Change and Water; WSN Environmental Solutions	<i>Protection of the Environment Operations Act 1997; Waste Avoidance and Resource Recovery Act 2001</i>
Queensland	Minister for Climate Change & Sustainability	Department of Environment and Resource Management	<i>Environmental Protection Act 1994</i>
South Australia	Minister for Environment & Conservation	Environmental Protection Authority; Zero Waste SA	<i>Zero Waste SA Act 2004; Environment Protection Act 1993</i>
Tasmania	Minister for Environment, Parks & Heritage	Department of Primary Industries, Parks, Water and Environment	Resource Management and Planning System of Tasmania (RMPS): <i>Environmental Management and Pollution Control Act 1994; Land Use Planning and Approvals Act 1993; State Policies and Projects Act 1993</i>
Victoria	Minister for Environment & Climate Change	Environmental Protection Agency; Sustainability Victoria	<i>Environment Protection Act 1970</i>
Western Australia	Minister for the Environment	Department of Environment & Conservation; Waste Authority	<i>Waste Avoidance and Resource Recovery Act 2007</i>

For other significant services in Western Australia, such as energy (electricity and gas) and water, each service has their own minister. For example, electricity and gas is covered within the Energy portfolio. The functions of the Office of Energy include research and the development of policy (Office of Energy 2010). Regulation falls to EnergySafety which is 'responsible for the technical and safety regulation of all of the electrical industry and most of the gas industry in Western Australia' (EnergySafety 2010). EnergySafety, however, operates within the Department of Commerce which is the responsibility of a different minister. In addition, the Economic Regulation Authority, 'designed to maintain a competitive, efficient and fair commercial environment, particularly where businesses operate as natural monopolies, for the benefit of the Western Australian community' (ERA 2010), currently reports to the Premier.

Water services also have a delegated minister. While the Department of Water, as outlined in the *Rights in Water and Irrigation Act 1914*, conduct business across the three areas of 'strategy and policy', 'regulation, licensing and protection' and 'water resource management' (Department of Water 2010), the regulatory role is also shared by the DEC and the Department of Health (water quality) and

the ERA (licensing and water service provisions) (ERA 2010).

3.2.3 Funding

Local Government spending on waste management activities include kerbside waste collection, litter collection (including costs associated with illegal dumping) and education programs. In addition to this, Local Governments and Regional Councils throughout Western Australia are responsible for the development, operation and maintenance of a broad range of waste management infrastructure, including landfill sites, AWT facilities, Materials Recovery Facilities (MRFs) and Transfer Stations. According to the Department of Environment and Conservation's (DEC) *Zero Waste Plan Development Scheme (ZWPDS) Phase 1 Report 2006-07*, these sites are managed to various degrees throughout the State (for example, in terms of staffing, level of engineering of the site and the monitoring of waste disposed) (2001, p. 15). **Table 3** lists the number of landfill sites, recovery facilities and transfer stations throughout Western Australia, as reported to the DEC in their 2007 online survey of Local Governments. There are a number of other sites not represented by this table, which could potentially include unlicensed sites and farms.

TABLE 3 Facilities in Western Australia as reported in the Zero Waste online survey 06/07

Facility Type	Number in Western Australia
Class I - Inert Landfill Sites	4
Class II/III - Putrescible Landfill Sites (licensed and registered)	148
Class IV Landfill Sites	1
Liquid Waste Disposal Sites	6
Green Waste Processing/AWT Facilities	6
Materials Recovery Facilities	4
Transfer Stations and Drop-Off Centres	37
Total Sites Reported	206

Reference: DEC 2007, *Zero Waste Plan Development Scheme (ZWPDS) Phase 1 Report 2006-07*, p. 15.

The Forum of Regional Councils (FORC) argue in their Paper on 'Essential Municipal Solid Waste Services' that the present 'regulatory, economic and operating environment' in the State discourages investment due to the uncertainty caused by significant financial investment large-scale projects require and the unpredictable planning and approvals process. For example:

- Recycling markets are currently depressed, adding to the overall cost of providing these services;
- The current business climate requires tenderers for Resource Recovery Facility (RRF) projects to take on more risk through disproportionately high pricing. There is also a high risk for Local Governments;
- Investment recovery from RRFs is long term; and
- The limit of State Government loan funds for projects not owned by Local Government. (FORC 2010, p. 9).

There is also concern that Local Government waste management services are not adequately protected from the influence of market failures or economic crises. For example, early 2009 saw considerable reduction in the price of recyclables (such as paper, cardboard, plastic and metals), impacting on Local Government's ability to deliver these services. The absence of other methods to ensure a baseline value for materials collected by Local Governments, such as a container deposit scheme, means that Local Governments are vulnerable to outside forces.

Currently, Local Government and Regional Council revenue is limited to four main sources of income (WALGA 2008, p. 73):

- 1) Rates;
- 2) Fees and charges;
- 3) Grants and contributions; and
- 4) Profit from business enterprise.

In addition, many Regional Councils receive money from gate fees. As outlined in WALGA's Systemic Sustainability Study Report (2008, p. 73), of the above revenue sources, 'Rates is the set over which Local Governments have the most discretion, although this discretion is limited by the ratepayer's capacity to pay and the inherent political process.' In addition,

Fees and charges also offer some level of discretion but are restricted by sporadic external State Government regulation and, in some cases; prices are limited to the cost of provision. Grants and contributions are most commonly influenced by the quantum of transfers by other governments while business enterprise profit is inherently risky and subject to the political process due to the current inability to establish commercial trading entities (such as companies and Associations) (2008, p. 73).

Currently there is an absence of baseline funding for Local Government waste management activities. All current schemes focus on new developments and upgrading existing infrastructure. Providing funds across Local Governments to enable the equalisation of service provision, does not occur in Western Australia. The Federal Assistance Grants (FAG) for Local Government recognises that not all Local Governments have the rate-base to provide many services, and consequently funding for these baseline services is provided. The Waste and recycling expenditure category is considered by Local Government Grants Commissions in all Australian jurisdictions except Western Australia and New South Wales. In Western Australia waste management has been considered to be a service provided on a full cost recovery basis and therefore should have no impact on grant allocations if both the revenue and expenditure is included.

Local Governments are being increasingly required by the State Government and their communities to substantially increase the environmental performance of their waste management facilities (landfills) as well as undertake resource recovery and recycling activities. While the social and environmental benefits of these initiatives may be clear, full cost recovery cannot be achieved in some locations for a variety of logistical and market reasons. As provision of this higher level of service is now becoming the new base level it is appropriate to review expenditure needs and revenue from waste and resource recovery activities.

Recommendation

That MWAC continue to advocate for the inclusion of waste management in the allocations of the Federal Assistance Grants for Local Government.

Through the Council of Australian Governments (COAG), the Federal Government has been pushing the reform of infrastructure throughout the country. As acknowledged in the 2007 'Infrastructure Report to COAG',

[q]uality infrastructure is critical to Australia's economic and social development. The provision of adequate and efficient infrastructure is essential to maintaining Australia's economic

prosperity and our standard of living (Australian Government 2007, p. 4).

The infrastructure recognised as priorities by COAG, and therefore the industries in receipt of Federal funding, are 'roads and rail', 'airports', 'energy', 'water', and 'telecommunications'. If waste management infrastructure is not considered as an infrastructure priority, there can be no expectation that these services will be funded at either State or Federal levels. Recognition of waste management services as 'essential' would potentially lift the profile of these services, not only at a government level, but also at community level. This recognition has the potential to influence an increase in business investment as well as potential intellectual investment (for example, University think-tanks, and research projects).

MWAC is currently developing a discussion paper on the funding options for Local Government waste management activities. The proposed Discussion Paper will include discussions on what Local Governments would expect to be funded from such programs, and how Local Governments would define a successful funding program.

Recommendation

That MWAC undertake research into the funding options for Local Government waste management activities in Western Australia.

The lack of consistent and accurate data has also had an impact on funding for these initiatives. The lack of accurate information to inform evidence-based decision making has also resulted in minimal political interest. Information currently collected from Local Governments as a requirement of legislative reporting include quantities of waste collected or recycled/reused, held in stockpiles and disposed to landfill. Local Governments are also required to report on the number of premises serviced, the amount of waste received at landfills and the amount of levy payable in respect of that waste. Local Governments also have their own reporting and data collection obligations which include annual, strategic and monthly reports. Data that should also be collected include tonnes to landfill and tonnes recycled across the State to ensure accuracy.

Local Government waste management data is a valuable resource that can inform policy decisions, highlight funding gaps and educate the community about developments in the industry. There are challenges, however, in collecting, reporting and using this data. Local Governments often find the internal and external demands for information difficult due to staffing and financial constraints. There is also concern regarding what data is being asked for by various agencies: whether the information has already been gathered through other mechanisms, and whether or not Local Government is the most appropriate industry to be providing these figures. The uses and consistency of this data is also of concern. Local Governments currently collect information for various purposes, using different collection and storage methods, which all have a major impact on the validity of data.

There have been several attempts at both State and Federal levels of government to develop a waste database in order to catch all waste management reporting. However, due to high resource intensity, expenses, and unreliable and outdated data, previous attempts have failed (for example the Australian Waste Database, initiated in 1990 by the Cooperative Research Centre in Waste Management and Pollution Control) (WMAA 2008, p. 2).

Recommendation

That MWAC work with the State and Federal governments, along with Local Government, to

3.2.4 Contingency Planning

At a workshop run by MWAC in August 2009, workshop participants identified a number of factors that were considered to be a potential risk for waste management, and in particular, the running of waste management infrastructure. Some of these factors included:

- Inappropriate facility siting (e.g. in densely populated areas), population encroaching into buffer zones;
- Contract disputes (e.g. with suppliers etc.);
- Contamination of facilities by inappropriate waste types;
- Negative public perceptions, community pressure to close an “unpopular” facility, protest;
- Staffing problems: union strike, staff/skills shortage (long and short term);
- Politics: changes in the level of support for the industries;
- Legislative changes, tight/confusing regulations causing a drag on industry development;
- Transport problems e.g. strike, route disruption, shipping problems for raw materials or end products;
- Natural disaster e.g. storm damage to facilities, fire (in facility or surrounding area), earthquake, flood;
- Human/animal epidemic/pandemic; and
- Lack of forward planning and investment, mismanagement.

The power Local Government has to influence these risks is minimal, and often coordination or the control of contingency planning and/or funding lies outside Local Government. **Box 8** outlines how the inclusion of Local Governments and Regional Councils in emergency management planning can aid in the effectiveness of clean-up programs. WALGA has produced a Draft Protocol for ‘Natural Disasters’ and Waste Management to address the need for this coordination. The Protocol covers events which are considered eligible ‘natural disasters’ by the State/Federal Government.

Box 8 – Emergency response to Perth Storm March 2010

The State and Australian government provide a range of relief measures to assist communities severely affect by an eligible natural disaster event (i.e. bushfire, cyclone, earthquake, flood, landslide, meteorite strike, storm, storm surge, tornado or tsunami), as outlined in the Western Australia Disaster Relief and Recovery Arrangements (WANDRRA).

In March 2010 there was a storm event in the Perth area which included heavy rain, high winds and hail. The waste management consequence of the storm were large quantities of greenwaste and damaged goods (household and commercial) which needed to be disposed of quickly.

The need for a rapid response to the event necessitated that there was coordination between those involved in waste disposal activities. A meeting of the Regional Councils, Fire and Emergency Services Authority of Western Australia (FESA), Department of Premier and Cabinet and WALGA highlight the need for local solutions for each of the Regional Councils.

The Regional Councils put in place a range of options for residents. For example, the South Metropolitan Regional Council (SMRC) allowed free access for greenwaste processing for a 2 week period, and the Mindarie Regional Council (MRC) offered free disposal of storm damaged material for a weekend. The activities were covered by the WANDRRA, therefore the costs were not incurred by the Regional Councils.

The lesson learned from the event were that there is limited large scale planning for waste management following a natural disaster event. As part of addressing this, WALGA are developing a draft Protocol for such events to ensure roles and responsibilities are clearly defined and plans for any future event are in place.

Recommendation

That MWAC engage with the Fire and Emergency Services Authority (FESA) and other relevant agencies to ensure that waste management is considered in contingency planning.

3.3 Implications of recognising waste management as an 'essential service'?

The anticipated benefits of waste management services being recognised as 'essential services' include:

- More certainty in regard to planning and funding;
- Inclusion in decision-making processes to allow for greater internal planning and budgeting; and
- Greater profile amongst the community which will affect the success of various programs.

At this stage, it is recommended that 'essential services legislation' should not be pursued in the process of forwarding waste management's cause for greater recognition within government and the community. This process will not only be a long and tedious one, but may not have supporters at state government-level due to associations with Industrial Relations, as seen in other 'essential services legislation' throughout Australia.

Under the chapter 'The case for government intervention' in the Productivity Commission's Waste Management Inquiry Report, a number of benefits have been highlighted to encourage more State and Federal Government involvement in waste management activities, including:

- 'Market failures' could impact on recycling incentives, which result in these activities not being as successful as possible. Government intervention could see more consistent markets for these products, ensuring the value of these programmes for the rest of the community.
- The 'public good' characteristics of some information can cause market failure. The Government could intervene in the form of education programmes to raise the profile of these services.
- Unchecked negative externalities from resource extraction and production processes could result in the generation of too much waste, and not enough recycling and excessive environmental damage. It is recommended that policies that target the source of these externalities directly are likely to be the most efficient option (PC 2006, p. 93).

4. CONCLUSIONS

The term 'essential service' is used to describe those services considered to be a basic right for all members of the community. The formal recognition of services as 'essential', however, is not consistent, and does not reflect the true value of many other basic services. 'Essential services legislation' as seen in other Australian states, also does not adequately define the term, or provide consistency in terms of allocating government support to these services. In addition, as this legislation is mainly concerned with the continuity of services in the case of industrial action, the usefulness to the Western Australian waste industry, or Local Government waste management activities, is minimal.

The services provided by Local Governments and Regional Councils regarding the collection, treatment and disposal of Municipal Solid Waste, are significant in terms of reducing public health and environmental risk. These services also have considerable social, environmental and economic impacts. Despite the value of these services to the community, Local Governments and Regional

Councils are faced with a number of challenges in providing these services. It is believed that by increasing the recognition of these services within the State Government, waste services will not only be better valued within the community, but there will also be improvements in regard to the planning of future infrastructure, approving new infrastructure, reducing residential encroachment on buffers, ensuring the continuity of services in the case of an emergency, and providing adequate support in terms of funding.

Another reason why 'essential services legislation' is not supported is because waste currently has its own legislation: the *Waste Avoidance and Resource Recovery Act 2007*. The primary objects of the WARR Act include the promotion of 'the most efficient use of resources, including resource recovery and waste avoidance' and 'reducing environmental harm, including pollution through waste'. There are a number of provisions within the WARR Act that are not currently being observed which, if pursued, could raise the profile of waste services. For example, Section 34 of the WARR Act also outlines the power of the CEO to make Local Government *and* industry report on compliance with the Waste Strategy. The WARR Act also includes provisions for Extended Producer Responsibility (EPR) schemes (Part 5), and also outlines waste provisions that can and should be included in local laws (Section 64).

The profile of waste management services should be lifted by targeting State Government bodies to increase their knowledge of waste management issues. For example, one strategy could be to engage with the Western Australian Planning Commission (WAPC) and the Infrastructure Coordinating Committee (ICC) in order to ensure greater strategic infrastructure planning for waste services. There is currently one Local Government representative on the ICC however, as Local Governments are increasingly joining Regional Councils to manage their waste services, it cannot be assumed that this representative would be aware of current and future waste management issues. There is also an opportunity for waste management services to be included in the *Planning and Development Act 2005* as essential community infrastructure. The *Planning and Development Act 2005*, out of interest, also outlines the membership of the ICC.

Another strategy employed by WALGA through MWAC could be the establishment of a group similar to the Cabinet Committee (Senior Officers) on Metropolitan Waste that was active in the mid-1980s. The formation of a high-level, cross-government committee would go some way to lift the profile of waste management services.

The Western Australian Local Government Association (WALGA) is the voice of Local Government in Western Australia. As the peak industry body WALGA is an independent, membership-based group representing and supporting the work and the interests of 139 Local Governments. The Association provides an essential voice for almost 1,300 elected members and over 11,000 employees of Western Australia and Christmas Island and Cocos (Keeling) Island Councils. WALGA also provides professional advice and offers services that provide financial benefits to the Local Governments and the communities they serve.

The Municipal Waste Advisory Council is a standing committee of the WA Local Government Association, with delegated authority to represent the Association in all matters relating to solid waste management. MWAC's membership includes the major Regional Councils (waste management). The Regional Councils members of MWAC include the Eastern Metropolitan Regional Council, Mindarie Regional Council, Southern Metropolitan Regional Council, Rivers Metropolitan Regional Council, Western Metropolitan Regional Council and the City of Geraldton-Greenough. This makes MWAC a unique forum through which all the major Local Government waste management organisations

cooperate.

In addition to WALGA and MWAC, the Forum of Regional Councils (FORC) is also involved in raising the profile of waste management in Western Australia. FORC is an alliance comprising of the five metropolitan Regional Councils and the City of Geraldton-Greenough. FORC members comprise the Chairpersons and CEO's of the Regional Councils as well as a Councils and Regional Waste Manager representing the City of Geraldton-Greenough. The principal purpose of FORC is to focus Regional Council Municipal Solid Waste disposal and processing management issues and to undertake tasks agreed to by members. Processing waste relates to the development and operation of AWT facilities.

In pursuing greater recognition of Local Government waste services within the State Government, it is recommended that WALGA, through MWAC, focus on the three main areas of planning, financial partnerships and continuity of service. It is recommended that, following the endorsement of this Position Paper, MWAC develop an action plan looking at how to progress the issues raised in this document. It is also recommended that MWAC request FORC to provide input into this process in order to clarify what roles MWAC and FORC will play in taking this agenda forward.

5. REFERENCES

Arlosoroff, Saul 1991, 'Developing countries struggling with waste management policies' in *Waste*

Management & Research, Vol. 9, pp. 491-494.

ASK Waste Management Consultancy Services 2010, *Alternative Waste Treatment (AWT) Technologies Draft Guidelines Document – Discussion Paper*.

Australian Bureau of Statistics 2009, *Environmental Issues: Waste Management and Transport Use*, ABS, Canberra. Available online at <http://abs.gov.au/>

Australian Bureau of Statistics 2010, *Government Finance Statistics, Australia, 2008-09 (Cat Number 5512.0)*

Australian Government 2007, 'Infrastructure Report to COAG', Canberra.

Australian Government Department of Families, Housing, Community Services and Indigenous Affairs (FaHCSIA) 2010, *National Indigenous Infrastructure Guide*, Canberra.

Brown, Valerie A. 1992, 'Roads, rates and rubbish are environmental issues: The environmental policy role of local government' in *Urban Policy and Research*, Vol. 10 (2), pp. 41-44.

Cardno (2008). Review of Total Recycling Activity in Western Australia 2006/07. Available online http://www.zerowastewa.com.au/documents/review_total_recycling_wa_0607.pdf

Commonwealth Government of Australia 2009, *Fair Work Act 2009* <http://www.workplace.gov.au/NR/rdonlyres/94109AFC-BF1D-4B70-9262-B00BCBA673C0/0/fwact2009.pdf> Accessed 9 June 2010

Council of Australian Governments (COAG) 2009, 'National Partnership on Remote Indigenous Housing', Canberra.

Davoudi, Simin 2006, 'The evidence – policy interface in strategic waste planning for urban environments: the 'technical' and the 'social' dimensions', in *Environment and Planning C: Government and Policy*, Vol. 24, pp.681-700.

Department of Environment and Conservation WA (DEC) 2007, *Zero Waste Plan Development Scheme (ZWPDS) Phase 1 Report 2006-07*.

Department of Water (website) 2010, <http://www.water.wa.gov.au/>, Accessed 12 August 2010

Economic Regulation Authority of Western Australia Website, <http://www.erawa.com.au/> Accessed 27 May 2010

EnergySafety Website 2010, <http://www.commerce.wa.gov.au/EnergySafety/> Accessed 10 August 2010

Environmental Protection Agency 2005, 'Guidance for the Assessment of Environmental Factors – Separation Distances between Industrial and Sensitive Land Uses.'

Environment Protection and Heritage Council (EPHC) 2010, *National Waste Overview 2009*, National Environment Protection Council, Adelaide

Essential Services Commission (Victoria) Website <http://www.esc.vic.gov.au/public/> Accessed 19 March 2010

Electrical Utilities and Public Administration Training Council Inc. 2010, *Waste Industry Workforce Development Plan: Workforce Planning Training needs for the Waste Industry in WA* (Waste Authority Strategic Waste Initiative Scheme funded project).

Forum of Regional Councils 2010, 'Essential Municipal Solid Waste Services'.

Glasson, John 1997, 'Carrying Capacity of Australia', *Australian Planner*, Vol. 34 (4), pp. 208-212.

New South Wales State Government, *Essential Services Act 1988*, <http://www.legislation.nsw.gov.au/maintop/view/inforce/act+41+1988+cd+0+N> Accessed 25 February 2010

Office of Energy 2010, <http://www.energy.wa.gov.au/> Accessed 10 August 2010

Planning Western Australia Website 'Infrastructure Coordinating Committee' <http://www.planning.wa.gov.au/The+planning+system/About+Planning+WA/Statutory+committees/statutory+committees+membership/1286.aspx> Accessed 19 May 2010

Productivity Commission 2006, *Waste Management (Productivity Commission Inquiry Report*, Commonwealth of Australia.

The Select Committee on Recycling and Waste Management 1995, *Recycling and Waste Management Final Report 1995*, Legislative Assembly of Western Australia, Perth.

Standing Committee on Environment and Public Affairs 2009, *Municipal Waste Management in Western Australia*, Legislative Council of Western Australia, Perth.

The State of Victoria 2005, *Towards Zero Waste Strategy* [http://www.sustainability.vic.gov.au/resources/documents/Towards_Zero_Waste_Strategy_\(Sep_05\)2.pdf](http://www.sustainability.vic.gov.au/resources/documents/Towards_Zero_Waste_Strategy_(Sep_05)2.pdf) Accessed 9 June 2010

Taylor Burrell Burnett 2007, *Keralup Masterplan*, for the Department of Housing and Works, September 2007.

Townsend, Timothy G, & Musson, Stephen E. 2006, 'Assessing the Landfill Disposal Implication of Discarded Electronic Equipment', Proceedings of the 2006 IEEE International Symposium on Electronics and the Environment, pp. 298-301.

Van de Walle, Steven 2009, 'When is a service an essential public service?' in *Annals of Public and Cooperative Economics* 80:4, pp.521-545.

Victorian State Government, *Essential Services Act 1958*, http://www.legislation.vic.gov.au/Domino%5CWeb_Notes%5CLDMS%5CPubLawToday.nsf Accessed 25 February 2010

Waste Authority 2010a, 'Draft II Waste Strategy for Western Australia', <http://www.zerowastewa.com.au/whoswho/authority/strategy/> Accessed 22 March 2010

Waste Authority 2010b, 'Draft II Waste Strategy for Western Australia. Appendix 2: Waste in Western Australia – additional data' <http://www.zerowastewa.com.au/whoswho/authority/strategy/> Accessed 22 March 2010

Waste Management Association of Australia 2008, *Australian Waste Database Preliminary Report*.

Western Australia Natural Disaster Relief and Recovery Arrangements (WANDRRA) 2009, 'Dictionary of Terms v4 (June 2009)', http://www.fesa.wa.gov.au/internet/upload/-1664491768/docs/Dictionary-Of-Terms-v4_June-2009.pdf Accessed 14 June 2010.

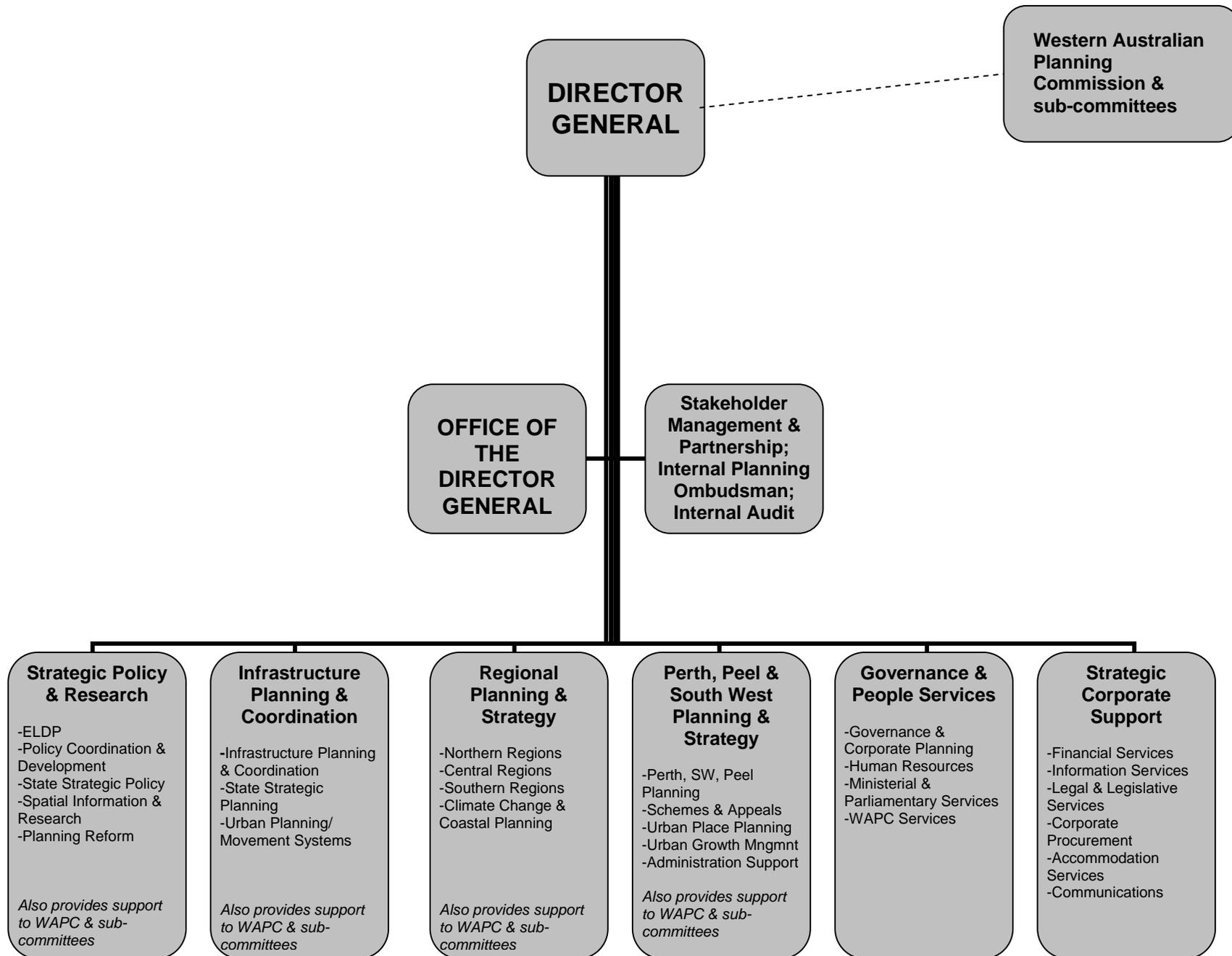
Western Australian Local Government Association 2008, *The Journey: Sustainability into the Future. Shaping the Future of Local Government in Western Australia*.

Western Australia Local Government Association 2010, 'Emerging Environmental Issues facing Local Government Survey 2010'

Western Australian Government 1986, *Environmental Protection Act 1986*.

Western Australian Government 2007, *Waste Avoidance and Resource Recovery Act 2007*

Western Australian Planning Commission 2009, 'Directions 2031. Draft Spatial Framework for Perth and Peel. June 2009' Perth, Western Australia.



Appendix 2

Industry	Description of industry	DoE Licence or Registration category (*)	Key Government agencies for advice or approvals	Code of Practice (CoP)/ environmental requirements	Impacts					Buffer distance in metres and qualifying notes
					Gaseous	Noise	Dust	Odour	Risk	
Composting facility	Outdoor uncovered, regularly turned windrows	✓ (67A)	WRC, local gov't	Draft Organic Wastes Guidelines – Dec 1997		✓	✓	✓		1000 for manures, mixed food/ putrescibles & vegetative food waste; 500 for biosolids & 150 for green waste
	Enclosed windrows with odour control	✓ (67A)	WRC, local gov't	Draft Organic Wastes Guidelines – Dec 1997		✓	✓	✓		250 for manures, mixed food/ putrescibles & vegetative food waste; 150 for biosolids
	In-vessel composting with odour control	✓ (67A)	WRC, local gov't	Draft Organic Wastes Guidelines – Dec 1997		✓	✓	✓		150 for manures, mixed food/ putrescibles & vegetative food waste; 150 for biosolids
Incineration	For biomedical, chemical or organic waste	✓ (59, 60)	Local gov't		✓	✓	✓	✓	✓	500-1000, depending on size
	For plastic or rubber waste	✓ (60)	Local gov't		✓	✓	✓	✓		1000
	For waste wood	✓ (60)	Local gov't			✓	✓	✓		300
Waste disposal	Site on which liquid waste from other premises is stored, reprocessed, treated or irrigated/ discharged	✓ (61)	DoH, WRC, local gov't			✓		✓		Case by case
Industrial liquid waste										
Inert landfill site (Class I)	Site only accepting inert waste, contaminated solid waste (meeting criteria for Class 1), special wastes (type 1),	✓ (63)	WRC, local gov't	Draft CoP – May 1997. Guidelines for Acceptance of Solid Waste to		✓	✓			150 for residential uses & an internal buffer of 25 from boundary

	as specified, for burial			Landfill – Jan 2001						
Putrescibles landfill site (Class 2 & 3)	Site accepting inert, putrescibles, contaminated solid waste (meeting criteria for Class 2 & 3), special wastes (type 1 & 2), as specified, for burial	✓ (64, 89)	WRC, local gov't	Guidelines for Acceptance of Solid Waste to Landfill – Jan 2001. Regs (Rural Landfill) 2002. Draft Rural Landfill Management CoP.	✓	✓	✓	✓		500 for sensitive uses (subdivisions), 150 for single residences & and internal buffer of 35 from boundary
Secure landfill site (Class 4)	Site accepting inert waste, contaminated solid waste (meeting criteria for Class 2, 3 & 4) and special wastes (type 1 & 2), as specified, for burial	✓ (65)	DoH, WRC, local gov't	Guidelines for Acceptance of Solid Waste to Landfill – Jan 2001	✓	✓	✓	✓	✓	Case by case
Intractable waste landfill site (Class 5)	Site only accepting intractable waste, as specified, for burial	✓ (66)	DoH, WRC, local gov't	Guidelines for Acceptance of Solid Waste to Landfill – Jan 2001		✓	✓	✓	✓	Case by case
Waste depot	Premises on which waste is stored or sorted, pending final disposal or re-use	✓ (62)	DoH, WRC, local gov't	Guidelines for Acceptance of Solid Waste to Landfill – Jan 2001		✓	✓	✓		200
Waste – resource recovery plant	Premises on which solid waste is stored, reprocessed, treated or discharged	✓ (60, 61A, 67)	DoH, WRC, local gov't		✓	✓		✓	✓	Case by case

Reference: EPA 'Guidance for the Assessment of Environmental Factors – Separation Distances between Industrial and Sensitive Land Uses'
June 2005