



Submission to the Review of the Waste
Avoidance and Resource Recovery Act 2007
Discussion Paper
March 2015



About CCI

The Chamber of Commerce and Industry of Western Australia (CCI) is the peak organisation representing business in Western Australia. It is the second largest organisation of its kind in Australia, with a membership of more than 9,000 businesses across all sectors of the economy. CCI aims to build a competitive and productive business environment in Western Australia by promoting free enterprise through advocacy and essential services that make it easier to do business. CCI's vision is for Western Australia to be a world leading place to live and do business.

Summary of CCI's position

The efficient disposal and recovery of waste is a topic that deserves more attention from policy makers in Western Australia. Current regulations impose costs on households and businesses that exceed the environmental benefits.

The Western Australian Government has established the Western Australian Waste Strategy: Creating the Right Environment (the Waste Strategy), which sets ambitious targets for diversion of waste from landfill. To achieve the waste diversion targets, the Western Australian Government has increased landfill levies considerably. However, there has been no economic or environmental analysis to substantiate the choice of targets or consideration of the costs of achieving the targets for businesses and the broader community.

In its 2006 Inquiry into Waste Management¹, the Productivity Commission questioned the approach still being taken in Western Australia towards waste management, particularly the focus on waste diversion targets and the use of landfill levies. Consistent with the best practice policy framework for waste management outlined by the Productivity Commission, CCI makes the following key points for consideration by the Review of the *Waste Avoidance and Resource Recovery Act 2007* (WA) (WARR Act).

- The Review of the WARR Act should be informed by a robust benefit-cost analysis that includes consideration of the waste diversion targets in the Waste Strategy and landfill levies. The analysis should explicitly outline the economic, environmental and social effects of waste avoidance and resource recovery. The Economic Regulation Authority is a suitably skilled and independent body to undertake this analysis.
- The object of the WARR Act should be limited to 'the protection of human health and the environment', to encourage policy makers to consider the benefits and costs of waste avoidance and resource recovery.
- Hypothecation of landfill levy revenue to the WARR Account creates rigidities in public finances and raises conflict of interest issues. Removing hypothecation of landfill levies and directly funding the Waste Authority from consolidated revenue would improve the transparency and governance of the Authority.
- Rather than setting waste diversion targets and landfill levies to achieve them, the State Government should seek to address market failures directly and ensure that environmental regulation reduces externalities from landfill to acceptable levels.
 - Waste diversion targets should be removed from the Waste Strategy.
 - Landfill levies should be removed, or at a minimum, significantly reduced.

¹ Productivity Commission 2006, *Waste Management*, Report no. 38, Canberra.

- The proposal to create statutory waste group(s) whose role is limited to procuring waste disposal and recovery services from the private sector could improve competition in the provision of waste services. However, imposing a requirement for waste groups to support the achievement of Waste Strategy targets is not supported because the current Waste Strategy does not reflect good practice.
- There is a role for government to reserve an adequate amount of appropriately located land for landfills and waste processing facilities and this could be furthered through the development of a statutory infrastructure plan. However, care should be taken to ensure that infrastructure plans do not unnecessarily constrain technology choices.

Context and scope

The introduction of the WARR Act in 2007 provided the State Government with a range of powers to influence the collection, disposal and recovery of waste. The WARR Act was introduced to further the Government of the day's vision of 'Towards Zero Waste' and is focused on increasing waste avoidance and resource recovery in Western Australia.²

In 2012 the State Government published the Waste Strategy which outlines ambitious targets for resource recovery and identifies increases to the landfill levy as being necessary to achieve them.³

The burden of the Government's waste management policies is increasing

Since the publication of the Waste Strategy, the Government has announced plans to increase the landfill levy for putrescible and inert waste by 150 per cent and 775 per cent respectively between 1 January 2015 and 1 July 2019.⁴ The levy increase is ostensibly to encourage waste diversion to satisfy the targets in the Waste Strategy and generate funds for environmental purposes.

Significant additional infrastructure will also be required to process the volume of waste required by the targets. The Strategic Waste Infrastructure Planning Working Group tasked with advising the Waste Authority on infrastructure requirements for the industry found that achieving the diversion targets would require some kind of (expensive) mixed putrescible waste processing, and that the existing waste and recycling infrastructure capacity is not sufficient to process the projected volumes of waste.⁵ Work undertaken on behalf of the Waste Authority indicates that industry investment in infrastructure of over \$1 billion will be required by 2020 to meet the waste diversion targets.⁶

The WARR Act Review Discussion Paper characterises landfill levies and regulations that increase diversion rates as having significant economic benefits — it states that diverting 'just one million

² Templeman, D. 2007, *Waste Avoidance and Resource Recovery Bill 2007 Second Reading Speech*, Legislative Assembly, 19 October.

³ Western Australian Waste Authority 2012, *Western Australian Waste Strategy: Creating the Right Environment*, March.

⁴ Department of Environment Regulation 2014, Landfill levy rates to rise from January 2015, <http://www.der.wa.gov.au/about-us/media-statements/112-landfill-levy-rates-to-rise-from-january-2015> (accessed 3 March 2014).

⁵ McLeod, G. 2014, *The Strategic Waste Infrastructure Planning Working Group: Process and Findings*, Presentation to Waste Authority consultation group, 11 April.

⁶ Department of Environment Regulation 2014, *Review of the Waste Avoidance and Resource Recovery Act 2007 Discussion paper*, December.

tonnes' of additional waste from landfill per year would create 600 jobs. The Discussion Paper also attributes waste diversion and recycling with having significant environmental benefits.⁷

However, the economic, environmental and social benefits and costs of the current arrangements have not been the subject of a robust assessment. For example, the Discussion Paper analysis does not factor in contractions in employment and output in other industries resulting from increased waste disposal and recovery costs for households and business. Studies also indicate that the environmental externalities from well-managed landfills are typically small, and increases to landfill levies have been associated with illegal dumping which actually contributes to pollution.

The Economic Regulation Authority's Inquiry into Microeconomic Reform in Western Australia identified waste management as an area requiring further investigation by the Economic Regulation Authority and/or policy development by the Government.⁸

It is incumbent on the State Government to ensure that households and businesses are not burdened with costs unnecessarily; and that the costs from regulation do not exceed the benefits. The Review of the WARR Act should be informed by a robust benefit-cost analysis, which includes consideration of the waste diversion targets in the Waste Strategy and landfill levies. The analysis should explicitly outline the economic, environmental and social effects of waste avoidance and resource recovery. The Economic Regulation Authority is a suitably skilled and independent body to undertake the analysis.

The Waste Avoidance and Resource Recovery Act

CCI proposes that amendments be made to the objects of the Act and to the hypothecation of landfill levy revenues.

Objects of the Act

The object of the WARR Act should be limited to 'the protection of human health and the environment', to encourage policy makers to consider the benefits and costs of waste avoidance and resource recovery.

The objects of the WARR Act outline the goals of waste management in Western Australia. At present, the primary objects of the WARR Act are 'to contribute to sustainability, the protection of human health and the environment, in Western Australia and the move towards a waste-free society' (box 1). However, the principal object of the Act is — as its name suggests — promoting waste avoidance and resource recovery.

⁷ Department of Environment Regulation 2014, *Review of the Waste Avoidance and Resource Recovery Act 2007 Discussion paper*, December.

⁸ Economic Regulation Authority 2014, *Inquiry into Microeconomic Reform in Western Australia Final Report*, June.

Box 1 Objects of the WARR Act

5. Objects of this Act

- (1) *The primary objects of this Act are to contribute to sustainability, and the protection of human health and the environment, in Western Australia and the move towards a waste-free society 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.*
- (2) *The principles set out in the EP Act section 4A apply in relation to the objects of this Act.*

It is generally accepted that government intervention in the economy should be limited to addressing market failures, and intervention should only occur where the benefits of intervention outweigh the costs. Both the WARR Act Review Discussion Paper and Waste Strategy state that there are market failures in waste management. For example, the Review Discussion Paper states:

*There are significant market failures within the waste sector that may warrant Government intervention.*⁹

And ...

The Government recognises the importance of improving the performance of the waste sector and that there are a number of factors that warrant an increased strategic role by the State. These factors include:

- ongoing failure of current market-based and institutional arrangements to realise the full value of resources lost to landfill; [and] ...*
- the need to ensure that costs reflect the full long-term costs associated with the activity, and the loss of potential resources that occurs as a result.*¹⁰

Similarly, the Waste Strategy states:

*Markets take many of the costs and benefits of managing waste into account and often provide incentives to reduce waste generation and undertake recycling. But 'market failures' can result in these incentives not being as strong as they should be.*¹¹

However, neither the WARR Act Review Discussion Paper nor Waste Strategy clearly outline what these market failures are (or indicate that the benefits of intervention have been assessed against the costs).

The Productivity Commission assessed the market failure rationale for regulation of waste services. It found that there is a market failure rationale for government intervention to address downstream environmental externalities of waste disposal and recycling such as leachate

⁹ Department of Environment Regulation 2014, *Review of the Waste Avoidance and Resource Recovery Act 2007 Discussion paper*, December, p. 6.

¹⁰ Department of Environment Regulation 2014, *Review of the Waste Avoidance and Resource Recovery Act 2007 Discussion paper*, December, p. 4.

¹¹ Western Australian Waste Authority 2012, *Western Australian Waste Strategy: Creating the Right Environment*, March, p. 12.

discharges, gaseous emissions, loss of visual amenity, foul odours, and disease-carrying pests. However, the Productivity Commission found that other reasons for encouraging waste avoidance and resource recovery, such as the declining availability of landfill space, upstream environmental externalities, and sustainability are either not market failures or would be better addressed directly (and often already are).

The Productivity Commission concluded that the overriding objective of waste legislation 'should be to reduce risks to human health, the environment and social amenity to acceptable levels'¹². While waste avoidance and resource recovery may contribute to a reduction in risk to the environment, the Productivity Commission found that 'waste avoidance and resource recovery are not objects justifying government intervention in their own right'¹³.

Maintaining waste avoidance and resource recovery as objects of the WARR Act may result in perverse outcomes. For example, it encourages recycling and waste avoidance to be maximised regardless of the cost and independent of the benefits to the environment. The Productivity Commission has noted that while it may be possible to recover and recycle an ever greater proportion of waste, when costs are factored in, this may not be desirable:

Policies that minimise waste are not costless and more recycling is not always a better thing. As we try to recycle more and more waste, diminishing returns set in, costs rise, and the potential for perverse environmental outcomes increases.

For example, it might be possible to collect and recycle virtually all glass containers used in Australia. But after taking into account all of the costs and benefits — financial, social and environmental — this will simply not be justifiable for all locations and circumstances.¹⁴

As discussed below, waste diversion targets in Western Australia have been set based on technical criteria and without consideration of the costs of achieving them. As such, there is a compelling case to amend the objects of the WARR Act to be simply to 'protect human health and the environment'. In practice this amendment would encourage policy makers to pursue the underlying environmental goals of the legislation while balancing the benefits and costs of waste avoidance and resource recovery.

Hypothecation of WARR Account Funds

Hypothecation of landfill levy revenue to the WARR Account creates rigidities in public finances, raises conflict of interest issues, and should be removed.

Under the WARR Act (section 79), a minimum of 25 per cent of the forecast landfill levies are required to be credited to the WARR Account. The WARR Account is administered by the Waste Authority and funds the activities of the Waste Authority and its programmes relating to the management, reduction, reuse, recycling, monitoring, or measurement of waste.

Hypothecation is often used to promote public acceptance of a tax, but it introduces rigidities into Government financing and shields hypothecated expenditure from appropriate budget scrutiny. Hypothecation might also raise conflict of interest issues as the Waste Authority's functions include providing advice to the Minister on the setting and variation of levies.¹⁵ This

¹² Productivity Commission 2006, *Waste Management*, Report no. 38, Canberra. p. XLII.

¹³ Productivity Commission 2006, *Waste Management*, Report no. 38, Canberra. p. XLII.

¹⁴ Productivity Commission 2006, *Waste Management*, Report no. 38, Canberra.

¹⁵ *Waste Avoidance and Resource Recovery Act 2007*, Schedule 2, Clause 2A.

effectively means the Waste Authority is responsible for providing advice to the Minister on its own funding levels. Removing hypothecation would resolve any conflict of interest issues. Alternatively, advice to the Minister on levies could be provided by an independent body, such as the Economic Regulation Authority.

Directly funding the Waste Authority from consolidated revenue would improve the transparency and governance of the Authority.

The Waste Strategy

The Waste Strategy outlines ambitious targets for diversion of waste from landfill. The strategy calls for the diversion of 65 per cent of municipal solid waste in the Perth Metropolitan Region by 2020, and 70 per cent of commercial and industrial waste and 75 per cent of construction and demolition waste in Western Australia by 2020 (table 1). The Productivity Commission has noted that, as is the case in Western Australia, 'waste diversion targets have tended to be set using technical and other criteria that are highly unlikely to maximise net benefits to the community'¹⁶.

Table 1 Waste Strategy landfill diversion targets

Waste stream	2009-10	2015 Target	2020 Target
	%	%	%
Municipal Solid Waste (MSW)			
Perth Metropolitan Region	36	50	65
Major Regional Centres	15	30	50
Commercial and Industrial Waste (C&I)	46	55	70
Construction and Demolition (C&D)	29	60	75

To date, there has been no economic or environmental analysis to substantiate the choice of diversion targets in Western Australia or consideration of the costs for business and the broader community. Although Western Australia's waste diversion targets and rates are frequently compared with those in other Australian jurisdictions, there is a general lack of analysis underpinning these targets and the quality of performance data is questionable. The Victorian Auditor General has found that targets in Victoria's previous waste strategy, *Sustainability in Action: Towards Zero Waste Strategy*, were not soundly based and data quality issues reduced the reliability of performance data.¹⁷ In its current Waste Strategy, Victoria has abandoned its previous target-setting approach.¹⁸ The 2010 Review of New South Wales' Waste Strategy also identified deficiencies in the quality of performance data.¹⁹

As discussed above, the Government has announced significant increases to the landfill levy to encourage achievement of the waste diversion targets, and significant infrastructure spending will be required to process the volume of waste required by the targets.

Waste diversion targets should be removed

To better align waste management policy with maximising community welfare, waste diversion targets should be removed from the Waste Strategy. Instead the State Government should seek

¹⁶ Productivity Commission 2006, *Waste Management*, Report no. 38, Canberra.

¹⁷ Victorian Auditor-General 2011, *Municipal Solid Waste Management*, June.

¹⁸ Victorian Government 2013, *Getting Full Value: The Victorian Waste and Resource Recovery Policy*, April.

¹⁹ NSW Government 2010, *Review of Waste Strategy and Policy in New South Wales*, Report by the Steering Committee for the Review of NSW Waste Strategy and Policy, December.

to address market failures directly, enabling market mechanisms to determine the efficient level of waste recovery.

The Productivity Commission has made a compelling case that, even where an effort is made to rigorously determine waste diversion targets, this is likely to be futile. Arguments made by the Productivity Commission include:²⁰

- Waste diversion targets are difficult to set at an optimal level as it requires a significant amount of information about the cost of diverting different types of recyclable waste from landfill and the environmental benefits of doing so.
- Over time the benefits and costs of waste diversion can change due to changes in technology and the prices of recyclables, commodities and currencies, necessitating waste diversion targets that are flexible to market conditions.
- Target setting can be subject to regulatory capture where targets are influenced by the interests of specific industry sectors or advocacy groups rather than the public interest.

The impracticality and questionable desirability of setting waste diversion targets is illustrated by the 2011 Victorian Auditor General's assessment of Victoria's waste diversion targets.²¹ ACIL Allen Consulting has summarised the main findings of the Victorian Auditor General:

*Core issues included that: (i) Sustainability Victoria and the Department of Sustainability could provide no evidence to demonstrate the targets were underpinned by any sort of robust analysis; (ii) consideration was not given to implementation costs; and (iii) a number of assumptions regarding the cost effectiveness of recycling technologies, and hence their commercial viability were incorrect.*²²

The Productivity Commission recommended that 'Governments should not directly or indirectly impose waste diversion targets as part of waste management policy'²³. Instead, the Commission found that:

*A better approach than using waste diversion targets, would be to directly address relevant market failures and distortions throughout product life cycles, thus assisting markets to achieve the right balance between waste avoidance, resource recovery and disposal.*²⁴

Landfill levies should be removed or reduced

Landfill levies in Western Australia exceed all estimates of the value of externalities from landfill and should be reduced significantly or removed to improve community welfare. Instead, government should concentrate on ensuring that environmental regulation reduces externalities from landfill (and waste recovery facilities) to acceptable levels.

In 2014 the State Government announced the landfill levy for putrescible and inert waste would increase progressively to \$70 per tonne by 1 July 2019. At present the landfill levy for municipal

²⁰ Productivity Commission 2006, *Waste Management*, Report no. 38, Canberra.

²¹ Victorian Auditor-General 2011, *Municipal Solid Waste Management*, June.

²² ACIL Allen 2014, *Economic Drivers of Waste*, p. 67.

²³ Productivity Commission 2006, *Waste Management*, Report no. 38, Canberra, p. 157.

²⁴ Productivity Commission 2006, *Waste Management*, Report no. 38, Canberra, p. 157.

solid waste is \$55 per tonne and \$40 per tonne for inert waste.²⁵ To date, no analysis has been provided to support the current or projected landfill levies. The DER has stated:

*The [landfill levy] increases will help divert the amount of waste being dumped at tips in the metropolitan area and encourage investment in alternative waste treatment options and other government initiatives to support increased recycling.*²⁶

Under an economically efficient framework for the management of landfill, government regulation would ensure that all the externalities of landfill were factored into the cost of landfill and markets would determine the level of waste recovery. To the extent that landfill has environmental and social externalities, such as leachate discharges, gaseous emissions, loss of visual amenity, foul odours, and disease carrying pests, then imposing a levy might improve the economic efficiency of waste recovery.

However, estimates of the value of externalities from landfill are highly uncertain. This was acknowledged by ACIL Allen Consulting, which stated that 'all the major studies of the externality costs associated with landfill note the existence of significant uncertainty in the calculations'²⁷.

The estimates that do exist for externalities from landfills are typically low relative to the level of landfill levies in Western Australia. The Productivity Commission stated that:

*The Commission has reviewed the available estimates and considers that, where such modern landfills include gas capture and electricity generation, the externalities are likely to be no more than \$5 per tonne of waste. Without gas capture, the external costs could be up to \$24 per tonne for wastes with high levels of organic content, due mainly to the costs of greenhouse gas emissions. Inert wastes appear to produce negligible externalities in landfill.*²⁸

ACIL Allen Consulting, in a report commissioned by the Waste Authority, found that 'for well run and regulated landfills the full externality correcting tax rates are around \$10 per tonne for putrescible waste and around \$4 per tonne for inert waste'²⁹. ACIL Allen estimated that, at most, the externality cost of landfill was about \$30 for municipal solid waste disposed of in landfill without gas capture technology.

These estimates are well below the current and projected landfill levies for putrescible and inert waste in Western Australia. Although there may be additional externalities from consumption elsewhere in the product life cycle beyond the externalities from landfill, such as from environmental harm from the extraction of virgin materials, as noted above these externalities are most efficiently addressed directly (and often already are).

ACIL Allen explained that where landfill levies exceed the externality costs of landfill, this will result in a decrease in community welfare: 'Any situation where the landfill levy is set at a rate above the total social cost results in a lowering of total community welfare'³⁰. It follows that

²⁵ Department of Environment Regulation 2014, *Landfill levy rates to rise from January 2015*, <http://www.der.wa.gov.au/about-us/media-statements/112-landfill-levy-rates-to-rise-from-january-2015> (accessed 3 March 2015).

²⁶ Department of Environment Regulation 2014, *Landfill levy rates to rise from January 2015*, <http://www.der.wa.gov.au/about-us/media-statements/112-landfill-levy-rates-to-rise-from-january-2015> (accessed 3 March 2015).

²⁷ ACIL Allen Consulting 2014, *Economic Drivers of Waste*, March, p. 33.

²⁸ Productivity Commission 2006, *Waste Management*, Report no. 38, Canberra, p. XXIX.

²⁹ ACIL Allen Consulting 2014, *Economic Drivers of Waste*, March, p. VIII.

³⁰ ACIL Allen Consulting 2014, *Economic Drivers of Waste*, March, p. IX.

because the current landfill levies in the Perth Metropolitan Region exceed the estimated externality costs of landfill, the current regulations impose costs on households and businesses that exceed the environmental benefits.

Given the uncertainty of externality estimates, and that externalities from well-managed landfill are typically small, the Productivity Commission recommended that governments discontinue using landfill levies:

On balance, the Commission does not favour the use of landfill levies, but rather regulation that reduces externalities to acceptable levels, and better enforcement. In this way, gate fees can internalise the environmental and external costs that would otherwise occur, and hence provide appropriate price signals to landfill users.³¹

Discussion Paper reform proposals

Local government waste operations

The proposal to create statutory waste group(s) whose role is limited to procuring disposal and recovery services from the private sector could improve competition in the provision of waste services. However, imposing a requirement on waste groups to support the achievement of Waste Strategy targets is not supported, because the Waste Strategy at present does not reflect good practice.

The current waste collection and processing arrangements in the Perth Metropolitan Region are characterised by voluntary local government membership of regional councils with discretion to align waste management practices with the Waste Strategy. The WARR Act Review Discussion Paper identifies the following weaknesses in the current arrangements³²:

- *The current arrangements do not take advantage of potential economies of scale, and cannot coordinate significant supplies of waste at a time. ...*
- *There is no formal requirement for regional councils to pursue state policy objectives; and mechanisms to align with State strategy are predominantly financial (e.g. through funding programs) rather than statutory. ...*
- *Existing regional council boundaries are not necessarily ideal to encourage efficient waste collection, transport and processing, and lead to inefficiencies and lack of coordinated effort.*
- *There are currently no statutory processes or mechanisms available to provide for better coordination within and between areas. ...*
- *Several local councils have withdrawn from regional councils, or are not actively participating in the projects being undertaken by other members. This has reduced the effectiveness of planning and purchasing functions within regional councils. ...*
- *Unstable membership has a direct impact on the confidence of a regional council when making long-term contract commitments. No new commitments to alternative waste treatment facilities (aside from those already commenced) have been initiated by regional councils in the past five years.*

³¹ Productivity Commission 2006, Waste Management, Report no. 38, Canberra,, p. XXXVI.

³² Department of Environment Regulation 2014, *Review of the Waste Avoidance and Resource Recovery Act 2014 Discussion Paper*, December, pp. 12-13.

In response to these perceived weaknesses, the WARR Act Review Discussion Paper proposes significant reforms to the arrangements for waste collection and processing:

It is proposed to establish statutory waste group(s) ... with compulsory local government membership. Each group will be required to develop waste plans and operate in a manner that is consistent with the statutory State waste infrastructure plans (see below) and support achievement of Waste Strategy targets.

The role of waste groups would be limited to coordinating the procurement of waste processing services (and collection if considered useful) from the private sector.³³

The principal benefit of the proposed waste groups is the proposed governance arrangements that would limit their role to the procurement of waste disposal and recovery services from the private sector. At present, regional councils own and operate a range of landfill and waste recovery facilities and also contract services from the private sector. The public sector ownership of waste facilities may be inhibiting competition in the provision of services, due to financial imperatives that encourage regional councils to favour their own facilities over private competitors. Governance arrangements which enhance competition and the role of the private sector in the provision of waste services would likely result in improved efficiency and lower costs.

CCI understands the desire expressed in the WARR Act Review Discussion Paper to address divergence between actual waste recovery levels and the State Government's stated diversion targets set out in the Waste Strategy. However, a significant cause of unstable regional council membership and poor compliance with the Waste Strategy relates to the ambitiousness of the targets in the Waste Strategy, the expense that would be required to achieve them, and decisions by local and regional councils to pursue more cost-effective waste disposal options.

As the Waste Strategy does not reflect good practice, a statutory requirement for the proposed waste groups to comply with the Waste Strategy at the present time is not supported. Addressing the deficiencies in the Waste Strategy would result in a better outcome for the community than mandating compliance with the existing Strategy.

If the proposed waste groups deliver the efficiencies identified in the Review Discussion Paper then local councils would be highly motivated to participate to take advantage of the cost savings. In the absence of a requirement for the proposed waste groups to comply with the Waste Strategy, further consideration should be given to whether compulsory membership of waste groups would be required.

Infrastructure planning

There is a role for government to reserve an adequate amount of appropriately located land for landfills and waste processing facilities. This could be progressed through the development of a statutory infrastructure plan.

³³ Department of Environment Regulation 2014, *Review of the Waste Avoidance and Resource Recovery Act 2014 Discussion Paper*, December.

However, care should be taken to ensure that infrastructure plans do not unnecessarily constrain technology choices. CCI notes that the Waste Authority's outline of the Waste and Recycling Infrastructure Plan for the Perth Metropolitan and Peel Regions includes a section on 'technology'. The Waste Authority has outlined that:

*The purpose of this section is to provide information and recommendations on suitable waste management facilities and technologies for the Perth metropolitan and Peel regions, and assess their potential contribution to achieving the targets of the Waste Strategy.*³⁴

Given a rapid rate of technological change in the industry, an infrastructure plan that attempts to define acceptable or desirable technologies may act as a constraint on the adoption of new or innovative technologies.

³⁴ Waste Authority 2015, Strategic Waste Infrastructure Planning, <http://www.wasteauthority.wa.gov.au/programs/funded-programs/strategic-waste-infrastructure-planning/> (accessed 4 March 2015).