



Submission to the Department of Climate Change

**Local Government Waste Management and the Carbon Pollution
Reduction Scheme Green Paper July 2008.**

**Written for and on behalf of the Local Government sector by the
Municipal Waste Advisory Council and Western Australian Local
Government Association.**

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Executive Summary

There is no doubt that Western Australian Local Governments have expressed concern about climate change impacts and have shown considerable leadership regarding mitigation and adaptation strategies, however it is also true that the imminent Carbon Pollution Reduction Scheme presents myriad difficulties, both in its direct and indirect effects on Local Government.

The Federal Government, through the Department of Climate Change has expressed the view that climate change management is going to present some costs to the Australian economy. WALGA acknowledges this as a necessity of the Scheme, but asserts that the Federal Government must also realise that there will be some sectors of the business and government community that will struggle to meet obligations under the conditions outlined in the recently released Green Paper. Exposed low income households and some businesses have been addressed in the paper; however Local Governments, the most under-resourced sphere of Government, have not been specifically captured by the 'profit-share' mechanisms that the Federal Government has outlined in the Climate Change Action Fund (CCAF) to assist with implementation and cost implications of the forthcoming Carbon Pollution Reduction Scheme.

To put this need in comparative perspective, the Australian Bureau of Statistics 5506.0 identifies 2006/07 Federal Tax Revenue as \$261,988 million, States \$48,911 million and Local Government \$9,388 million out of \$319,776 million. Local Governments receive 2.94% of Australian Tax Revenue but only through their own taxing efforts (i.e. property rates). Through Financial Assistance Grants (FAGs), Local Governments receive from the Commonwealth funding that equates to only 0.67% of Federal Government Revenue. Adding funding for local roads, Local Governments receive from the Commonwealth funding equivalent to a total of 0.75% of Federal Government Revenue.

While Local Government is not reticent in adopting strict climate change measures or making considerable changes to 'business as usual', many Western Australian Local Governments (over 50%) are not well enough resourced currently to meet their immediate responsibilities in relation to asset and infrastructure management, let alone to comply with the future costs and legislative requirements that a Carbon Pollution Reduction Scheme will present (*The Journey – Sustainability into the Future, 2008*). So whether or not they wish to commit to deep cuts and significant abatement and adaptation strategies, they may simply not have the resources to do so. The rising costs of energy and water, along with lesser acknowledged impacts such as rising infrastructure management and construction costs for Local Government will further exacerbate the issue of inadequate Local Government resourcing and may lead to a situation prohibitive of necessary climate change action.

Previous indications from the Federal Government, including the Garnaut Climate Change Review Interim Report, indicated to the sector a Government preference for the waste sector to remain outside the Carbon Pollution Reduction Scheme until such time that the accuracy of emissions estimation improves. However page 107 of the Green

Paper (section 2.8 under 'Preferred position') states that, "Emissions from the waste sector would be covered from scheme commencement, with the precise scope of coverage, thresholds and their detailed design issues to be determined." Very limited time has been provided in the consultation phase of this Green Paper for the waste sector to examine the potential impacts of a significant change in approach. It is critical that the government maintain a genuine dialogue with the waste sector through the development of the White Paper and any subsequent legislation to ensure that a workable regulatory environment and the desired outcomes in terms of carbon pollution reduction by the sector are achieved.

There has also been a measure of confusion for Local Governments surrounding the development and implementation of the National Greenhouse and Energy Reporting System (NGERS) and its subsequent legislation and reporting requirements. This has predominantly arisen from the lack of clear information available from the Federal Government on what types of entity are 'liable' to report to the scheme. This has been very deliberately addressed in the Green Paper to ensure that Local Governments, irrespective of their current incorporation status, are required to report if they own or control a facility that breaches the 25 kilo tonne CO₂^e threshold and will be captured by the regulations surrounding scheme implementation. In fact it appears that the National Greenhouse and Energy Reporting Act 2007 will be amended to ensure that the Local Government sector is clearly captured by these regulations.

This is outlined on page 196 of the Green Paper where it states, "Unincorporated entities with operational control over a covered facility would also have obligations under the scheme. This could include partnerships, trusts, government and non-government organisations (for example, where waste landfill sites are operated by unincorporated local government councils), or individuals (who are involved in large facilities). The National Greenhouse and Energy Reporting Act 2007 would be amended to oblige such unincorporated entities to report their emissions to the Government."

Additionally it appears that that threshold may be further reduced at the commencement of the scheme to 10 kilo tonne CO₂^e, which would capture many, if not most, Western Australian landfill facilities, most of which are run by Local Governments, either through a Regional Council (an organisation of Local Governments formed into an incorporated body largely for the purposes of Waste Management) or by individual Local Governments.

Prior to the release of this paper it was not clear what the reporting system for monitoring and reporting under the Carbon Pollution Reduction Scheme would be and despite discussions with the Federal Government on this matter WALGA was not able to glean this information until the Green Paper was released. In point of fact, initial discussions with experts from the Federal Government on the NGERS development advised WALGA that it was unlikely that Local Government would be captured or affected by the scheme. It is now clear that the Federal Government intends to use the amended NGERS framework for reporting and to strengthen elements of the system to support the scheme. Therefore WALGA advises that it would be considered opportune for any Local Governments likely to be directly affected by the Carbon Pollution Reduction Scheme to take early action on familiarisation with the NGERS and to begin estimating and reporting their emissions into this system regardless of their current obligation (or lack thereof) to do so.

Given that Local Government has been deliberately obliged to participate in the Carbon Pollution Reduction Scheme WALGA asserts that it is incumbent on the Federal Government to ensure that the sector is adequately resourced to undertake actions necessary to ensure compliance with the Scheme. Resourcing needs for the Local Government sector in relation to the Carbon Pollution Reduction Scheme are likely to include administrative and reporting expertise, assistance in developing and delivering emissions estimation methodologies for landfills and general training on the OSCAR system. The *Inter-Governmental Agreement Establishing Principles Guiding Inter-Governmental Relations on Local Government Matters (April 2006)* establishes that “**any consequential financial impacts are to be considered within the context of the capacity of Local Government**”.

It is important to note that while Local Governments are not reluctant to act on climate change management strategies, many are unlikely at this stage to have the human resources and internal expertise to deliver on the regulatory obligations imposed by the scheme. Additionally, resourcing adequate to meet rising energy and water costs will be necessary to ensure National targets are met and exceeded.

While the Carbon Pollution Reduction Scheme is likely to capture Local Government directly through landfill facilities (and in fact has been designed to do so), there are a wide range of indirect impacts which will affect Local Governments in Western Australia which may not have an immediately calculable impact, however will be no less costly or pressing.

While WALGA accepts that the Federal Government may not have anticipated Local Governments being affected to the extent that they have been by the scheme, it would be of value for the implications for Local Government to be more specifically explored and addressed than they have been within the scope of this paper.

Recommendation: The Association requests and recommends a comprehensive analysis of the impacts of the CPRS on Local Government to be prepared in consultation with Local Governments and prior to the release of the White Paper.

Recommendations

Recommendation 1: The Association supports the inclusion of the waste sector as a covered sector from Scheme commencement, but with a series of qualifications, without which the sector cannot support the inclusion of waste in the Carbon Pollution Reduction Scheme. These qualifications are outlined below.

Recommendation 2: That Federal Government provide an adequate consultation period for the CPRS and ensure that Local Governments are deliberately considered with respect to the cost implications and impacts on both the Local Governments themselves and their ratepayers.

Recommendation 3: The Association sees the 25 kilo tonne CO₂^e threshold as a manageable option for Local Governments but does not support a lower threshold for landfills.

Recommendation 4: The Association recommends that the Federal Government reconsider the opportunities in offsets and carbon 'credit' sales for a wider range of abatement projects, particularly those with large capital costs (as opposed to the very limited reforestation 'opt-in' option). The Association also recommends the removal of AWT facilities from scheme coverage.

Recommendation 5: The Association recommends that legacy landfill sites are not included in the scheme coverage of the waste sector and that the Federal Government ensure that estimation methods take into account historical waste equitably.

Recommendation 6: That operators of landfills exceeding the threshold size be required to acquit permits based on the quantity and type of waste received in the previous year. The number of permits to be acquitted would be estimated using the models accepted by the NGERs during that year.

That landfill gas captured and burnt be eligible to generate offsets within the compliance market. The permits received could be used to offset the requirement to acquire permits or sold in the compliance market alongside offsets from forestry.

Recommendation 7: That the Federal Government clarify the status of Renewable Energy Certificates into the future and in relation to the Carbon Pollution Reduction Scheme to assure REC generators that their investments are secure under this process.

Recommendation 8: The Association asserts that offsets/permit (generation) should be allowed for industries investing in projects with significant 'additional' abatement outcomes. While the Association believes that these offsets should be available for sale into the compliance market, should this option not be considered, it is imperative that these industries are able to make use of the voluntary market to compensate some of the costs of the projects.

Recommendation 9: That the Federal Government acknowledge that the current proposed estimation methodologies for waste/landfill emissions are not stringent enough to ensure reporting accuracy (or even accurate margin for error) and allow for flexibility within the Scheme to enable improvement in this area.

Recommendation 10: The Association recommends that the Federal Government reconsider waste as a 'strongly affected' industry on the grounds that many waste facilities (most larger sites) have invested significantly into gas capture and methane flaring infrastructure. Pass through of costs is also constrained to a degree by the capacity of the community to cover rate, levy and gate fee increases.

Recommendation 11: WALGA recommends that each State be provided adequate local resources (i.e. dedicated officers seated within each state Environment Department), to mentor those sectors or individual entities struggling with reporting requirements through the process.

Recommendation 12: That the significant costs inherent in the Carbon Pollution Reduction Scheme be equitably assessed and that all costs to ratepayers/community members be taken into account when allocating funds, both to 'strongly affected industries' (in which waste should be included by virtue of its inability to pass on costs) and to householders.

Recommendation 13: That international consistency and equity be ensured and maintained in the development of the Scheme and that interaction with international trading schemes be assured and supported by the Federal Government.

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Introduction

The Western Australian Local Government Association

The Western Australian Local Government Association (WALGA) is the united voice of Local Government in Western Australia. WALGA is an independent, membership-based group representing and supporting the work and interests of all 139 Local Governments in Western Australia.

WALGA provides an essential voice for almost 1,400 elected members and over 12,000 employees of the 139 Local Governments in Western Australia. WALGA also provides professional advice and offers services that provide financial benefits to the Local Governments and the communities they serve.

WALGA is a member of the Australian Local Government Association (ALGA), and actively contributes to the development of policy at a national level. Through the national Association, WALGA is well placed to contribute to debate and decision-making at the Council of Australian Governments (COAG). The President of ALGA is a member of COAG.

WALGA works closely with both State and Australian Government Ministers and Departmental Officers to ensure Local Government has a strong voice across the political community, develops robust policy and policy projects and provides an advocacy role where necessary. The influence of WALGA within the Local Government sector and on its behalf is significant and WALGA has recently signed a Climate Change and Sustainability Partnership Agreement with the Western Australian State Government ensuring that both Local and State bodies are working towards complementary objectives. This will be achieved through the construct of the State / Local Government Climate Change and Sustainability Council, comprising relevant State Ministers, the President of WALGA and officers of State and Local Government, as required.

The Municipal Waste Advisory Council

The Municipal Waste Advisory Council (MWAC) 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, South East 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 Submission therefore represents the consolidated view of Western Australia Local Government on waste issues in the Carbon Pollution Reduction Scheme. However, individual Local Governments and Regional Councils may have views that differ from the positions taken here.

This submission has not yet been endorsed by MWAC, however, it will be put before the Council at the earliest opportunity (Wednesday 15 October 2008) and any changes to this Submission following consideration by the Municipal Waste Advisory Council will be passed on.

Context

Local Governments in Western Australia manage putrescibles and other waste using the powers and responsibilities established under the Waste Avoidance and Resource Recovery Act (2007). There are over 300 licensed landfills in Western Australia, the vast majority being small scale operations controlled by Local Government authorities. Rural and remote Local Governments may operate more than one landfill site, due to the vast distances between towns and communities.

Municipal waste generation in the Perth region is steady at just over 0.5 tonnes per capita (*State of the Environment Report, 2007*). The average household size is estimated at 2.4 persons (ABS Cat No 3101.0), indicating that the average household generates approximately 1.2 tonnes of Municipal Waste per year. Based on the estimate that each tonne of municipal waste generates 1.4t CO₂e, the average household generates 1.7 tonnes CO₂e. In the absence of any investment to reduce or eliminate this, at an assumed permit cost of \$30 per tonne CO₂e, waste disposal will add approximately \$50 per year or 25% to a typical household waste disposal budget. This however does not aggregate the myriad additional costs that Local Governments will need to absorb and pass through to ratepayers as a result of the CPRS, it merely presents a basic outline of waste associated cost increases to householders.

Focus of this Submission

While the Association is aware that the Carbon Pollution Reduction Scheme will have widespread indirect impacts across Local Government, the direct impacts for Local Governments and Regional Councils are likely to fall in the waste sector. To this end the Association has worked with the Municipal Waste Advisory Council and a team of experts across the Local Government waste industry to identify the emerging issues for the waste industry specifically. This submission is waste specific. A further paper exploring the wider issues for Local Government policy and operations has also been submitted by the Association.

1. Local Government and Waste Management in Western Australia

1.1 Inclusion of the Waste Sector in the Carbon Pollution Reduction Scheme

The direct issues for Local Governments, as well as regional organisations of Councils, in relation to the Carbon Pollution Reduction Scheme are, in the main, related to waste sector emissions. Western Australian Local Governments have specific statutory responsibility for landfill services, and it is this operational function which will be most affected by the implementation of the Scheme.

Many of the issues that arose for Local Government in relation to the NGERs apply also to the commencement of the Carbon Pollution Reduction Scheme. As outlined above, Western Australian Local Governments will be predominantly affected by this scheme in relation to their waste management obligations. Other functions of Local Government are unlikely to, as discrete facilities, breach the 25 kilo tonne CO₂^e threshold for emissions production or energy usage.

It is clear that the Federal Government has developed this paper in order to prompt discussion on the Scheme design, however it is also clear that little consideration has been given to direct Local Government waste sector impacts. Additionally it appears that the Federal Government does not expect to capture a large proportion of Local Government waste facilities, however in Western Australia this is not the case, particularly if the Federal Government chooses to implement a reduced threshold for landfill facilities. A table of landfill sites in Western Australia likely to be covered by the scheme is attached to this submission (Appendix 1: *provided by the Department of Environment and Conservation WA*).

The waste management sector has long recognised the direct and indirect opportunities to reduce greenhouse gas emissions and difficulties in doing this in an economically sustainable way.

The sector believes that a well designed a CPRS applied to the waste sector will contribute to setting price signals to encourage economically and environmentally efficient solutions in waste reduction, recycling, waste diversion and resource recovery.

However, the sector is concerned about potentially undesirable consequences arising from implementation of the CPRS. These issues are set out below, along with some suggestions to mitigate the undesirable outcomes.

Recommendation: The Association supports the inclusion of the waste sector as a covered sector from Scheme commencement, but with a series of qualifications, without which the sector cannot support the inclusion of waste in the Carbon Pollution Reduction Scheme. These qualifications are outlined below.

1.2 Consultation process and Intergovernmental Agreement

The Association wishes to raise the point that, despite the Federal Governments' tight timeframes, which are understood; there are processes and procedures that Local Government need to undertake in order to ensure adequate consultation with stakeholders takes place. The consultation process for Local Government is longer than the consultation process afforded by the Green Paper has allowed in this case, and as a

result, an incomplete representation of Local Government needs and issues is likely to be captured here. While consultation with a small, expert stakeholder reference group has taken place in lieu of wider and more formal consultation, it is advised that the Federal Government take note of stakeholder communication requirements in the future if they seek adequate and representative feedback.

In Western Australia a State / Local Government Partnership Agreement on Communication and Consultation exists to ensure that Local Government adopts a fair and equitable Code of Practice on consultation, and allows a suitable length of time to deal with issues arising. A paper of the magnitude of the Green Paper (at 516 pages in length) which has significant impacts on the Local Government sector needs to be afforded a considerable consultation period (in excess of the expected period of 12 weeks) and be presented as specifically as possible for each directly affected sector/industry. This paper is structured so that Local Government has to search for, amongst the very complex information, issues that will directly and indirectly affect them, and then analyse them for their specific area.

Additionally the *Inter-Governmental Agreement Establishing Principles Guiding Inter-Governmental Relations on Local Government Matters (April 2006)* establishes that “any consequential financial impacts are to be considered within the context of the capacity of Local Government”. This implies that any policy or legislation handed down from Federal or State Government to Local Government for implementation must be properly considered and consulted and all cost implications taken into account. This is a binding Agreement between Federal State and Local Government.

Recommendation: That Federal Government provide an adequate consultation period for the CPRS and ensure that Local Governments are deliberately considered with respect to the cost implications and impacts on both the Local Governments themselves and their ratepayers.

2. Coverage of the Waste Sector

2.1 Thresholds for Coverage

While a 25 kilo tonne CO₂^e threshold for the waste sector will capture approximately 15 Western Australian landfill sites, it is indicated that at least 25 Western Australian landfill sites would be directly impacted should the threshold be reduced to, 10 kilo tonne CO₂^e with many more feeling the indirect impacts as landfill facility operators struggle with their liabilities and consider diverting waste to smaller sites in order to avoid them. This represents a significant proportion of the Western Australian waste industry.

The thresholds in the case of landfill facilities are of utmost importance and create a set of implications, both in the encouragement of abatement and in creating disincentives that will have significant cost impacts on Local Governments, who will then need to pass through these costs, via gate fees or rates and charges, to ratepayers. The magnitude of these increased costs to householders is explored later in the paper.

The Association sees the 25 kilo tonne CO₂^e threshold as a manageable option for Local Governments as those landfill sites which ‘trip’ the threshold will generally be larger, aggregated landfills (i.e. those attached to Regional Councils or collecting waste from a

larger regional area) and will have a better developed capacity to cope with the additional administrative, monitoring and compliance costs that the Scheme will present.

The Association does not support a 10 kilo tonne CO₂^e reduced threshold for landfills on the grounds of a number of key issues. While the Association acknowledges that a reduced threshold may prevent some larger landfills from diverting waste to other sites in order to avoid responsibilities, it does not believe that the smaller landfills captured by the Scheme will have the capacity to bear the financial burden of the Carbon Pollution Reduction Scheme. In effect, this would prevent smaller landfills accepting waste from larger ones without the need to capture them in the Scheme as smaller landfills are unlikely to want to increase their own liability by accepting external waste.

Additionally, the Association considers a 10 kilo tonne CO₂^e threshold a direct disincentive to regionalisation of landfill facilities, which is a supported position of the Association and of relevant State Agencies. This is of particular relevance to the Association's recent work on systemic sustainability for the sector, and the State funded Zero Waste Plan Program, both of which support a program of regionalised services, which increase efficiencies and subsequent viability of waste avoidance projects. In applying a 10 kilo tonne CO₂^e threshold to the waste sector the Federal Government will be effectively negating positive core environmental outcomes by imposing a disincentive to regionalisation and therefore imposing a new cost liability on smaller landfills, which is likely to make abatement projects less feasible when weighed against increased reporting, monitoring and compliance costs.

Arguably the proposed arrangements create a perverse incentive for Local Governments not to participate in Regional scale, high tech, efficient waste and resource recovery facilities / programs, but rather operate at a local level (small scale landfill) and remain small enough to remain outside of the scope of the CPRS. This is clearly not consistent with achieving real reductions in CO₂^e, only in measured CO₂^e. This is particularly the case if the criteria are site based, rather than organisation based.

The lower threshold is also likely to encourage dishonest dealings as smaller landfills attempt to escape liability by diverting their own waste, either to smaller landfills again, or to illegal dumping of waste, which is already an issue in some smaller Local Governments.

There is also a direct inequity in having a lower target imposed on the waste sector than on industry. Additionally there would appear to be a coverage inequity. There will be approximately 200 landfills out of 1200 Scheme participants (16.67%) in the CPRS for a sector that contributes only 2.9% (*Barry Sterland 2008*) of National emissions. This equate to an over-representation of approximately 6 times.

Additionally the capacity of smaller landfills to recoup increased costs through rates and gate fees is limited by the constrained rate base in some of these areas, and rate increases are likely to be unwelcome and unpopular, particularly in resource poor rural areas.

Recommendation: The Association sees the 25 kilo tonne CO₂^e threshold as a manageable option for Local Governments but does not support a lower threshold for landfills.

2.2 Alternative Waste Treatment

The Association does not support the aggregation of all waste management related operations and believes that Alternative Waste Treatment (AWT) should remain outside the scope and coverage of the Carbon Pollution Reduction Scheme.

Alternative Waste Treatment (AWT) does not view the waste it treats as a waste product, rather as a resource, which effectively makes it a manufacturing and/or resource recovery process, rather than a waste management option. As few other manufacturing entities are directly captured by the scheme, it is arguable that to capture AWT, by virtue of its linkages and often co-location with waste management facilities, is to create competitive disadvantage with other similar industries. For example, a Local Government which collects and composts organic waste and reduces organics to landfill should be treated no differently to a business which produces commercial compost through a manufacturing plant. This point is further illustrated by the matter of *Resourceco Pty Ltd v SA EPA* which states that “A material becomes a waste at the point of discard/abandonment, or the point at which a decision is made that the material is unwanted or surplus. It ceases to be a waste when its character changes, either through being sold or by being recycled to become useful...” (*WME Magazine*, May 2008: 78).

Further to this qualification - AWT is a separate ANZSIC Class to operating landfills and should be treated differently:

Class 2921 Waste Treatment and Disposal Services - This class consists of units mainly engaged in the treatment or disposal of solid, liquid and other waste types (including hazardous). Also, included are units mainly engaged in operating landfills, combustors, incinerators, compost dumps and other treatment facilities (except sewage treatment facilities), including waste transfer stations.

Class 2922 Waste Remediation and Materials Recovery Services - This class consists of units mainly engaged in the remediation and clean up of contaminated buildings and mine sites, mine reclamation activities, removal of hazardous material such as asbestos and lead paint and other toxic material abatement. This class also includes units mainly engaged in providing materials recovery and sorting services.

Effectively this provides legal precedent and reasoning for AWT to be considered outside of the scope and coverage of the Carbon Pollution Reduction Scheme. This is of particular concern for the Association as some Western Australian facilities have already undertaken significant greenhouse gas reduction measures through AWT infrastructure and the Scheme design would appear to penalise, and make unviable others considering this early and ‘beyond business as usual’ action.

While few facilities have undertaken on-ground AWT projects at this stage, the Association encourages the further development of waste avoidance and resource recovery facilities by Local Government waste management operators, as an investment into best practice environmental outcomes. Considering AWT under waste sector coverage may deter waste facilities from developing AWT processes in order to divert waste from landfill. If the cost of developing the infrastructure to participate in waste avoidance processes is higher than the cost of compliance with the scheme, then the less likely it is that resource poor Local Governments will invest in innovative solutions.

A re-badging of AWT to a resource recovery or manufacturing industry construct might avoid penalising forward thinking waste management facilities and encourage further innovative development in this area.

Additionally the Association considers the limited offsets opportunities afforded under the scheme a penalty of sorts to those waste avoidance projects who have deliberately offset the significant capital costs of abatement projects against the Greenhouse Friendly™ process, by which they have generated carbon ‘credits’ for sale into the voluntary market, which will presumably be negated by the scheme. This is further exacerbated by the fact that the Federal Government does not consider waste a ‘strongly affected’ industry and as a result offers no compensation to facilities that will effectively lose their income and their capacity to recoup capital cost expenditure. This will leave some Western Australian facilities with large infrastructure liabilities and no way to offset the capital or maintenance costs. This is particularly the case with AWT, which invests significantly in the ‘public good’.

Recommendation: The Association recommends that the Federal Government reconsider the opportunities in offsets and carbon ‘credit’ sales for a wider range of abatement projects, particularly those with large capital costs (as opposed to the very limited reforestation ‘opt-in’ option). The Association also recommends the removal of AWT facilities from scheme coverage.

2.3 Legacy Sites & Historical Emissions Estimation

Legacy sites are also a concern for Local Governments in terms of reporting liabilities, which are not clearly defined or captured by the Green Paper. The ‘First Order Decay’ methodology for calculating emissions from landfill sites cannot ensure that all sites are equitably covered as legacy sites provide no direct ‘cash-flow’ to offset the costs of monitoring and reporting or the installation of gas capture infrastructure to reduce liability. There also exists very limited capacity to estimate emissions or waste composition of legacy sites. To clarify, in the context of this paper, legacy ‘sites’ refers to completely decommissioned landfill sites which are no longer receiving (organic) waste.

There exists no possible opportunity for legacy sites to participate in a ‘lowest cost abatement process’ as there is no capacity for pass through of costs in this instance. This situation might be alleviated should offsets for ‘methane capture to energy’ projects be available in a cost offset capacity but effectively, without an offsets mechanism, legacy sites create only costs to Local Governments (or private owners) in whom they are vested, without any opportunity for reducing liability. In the current scheme design the limited offsets capacity disadvantages those Local Governments who have legacy sites vested in their control and would create still more additional costs to the ratepayer in the long term as Local Governments push up their costs in all areas to cover liabilities.

The Garnaut Review proposed three central tenets for the design of an Emissions Trading Scheme for Australia which were; simplicity, lowest cost abatement options and the capacity for behaviour change. The basic scheme design for the waste sector outlined in the Green Paper generally does not reflect those tenets, but is particularly juxtaposed in the case of legacy landfill sites as measurement is complex and costly,

there are no low cost abatement opportunities and there exists no capacity for the change of community, business or Government behaviour in this instance.

Additionally there are some significant equity issues surrounding historical waste emissions from landfill sites. To clarify, in the context of this paper, historical waste refers to waste that has been received into a landfill prior to Scheme commencement. As often waste has been deposited in the same landfill site for a number of years, there is little way of knowing whether emissions are from recent or historical waste within the terms of the Carbon Pollution Reduction Scheme. This positions modern waste facilities that have only been emitting for a short period of time against those which have existed for a longer period, particularly with respect to direct emissions measurement practices.

Recommendation: The Association recommends that legacy landfill sites are not included in the scheme coverage of the waste sector and that the Federal Government ensure that estimation methods take into account historical waste equitably.

2.4 Timing of Permit Acquittal

Unlike most other key industries to be covered under the CPRS, there is a significant (multi-year) time lag between the revenue generating activities of a landfill operator (receiving waste) and the potential or actual emission of CO₂^e to the atmosphere. Consequently the CPRS must be designed to both signal the CO₂^e cost of waste to current waste generators, and provide appropriate economic signals to waste managers to take cost effective steps to reduce greenhouse gas emissions both now, and into the future as new technologies emerge and pricing signals change.

In order ensure that operators of landfills are not only passing through costs but also abating emissions it is practical to mandate that all landfill operators, exceeding the threshold size of 25 kilo tonne CO₂^e, be required to acquit permits based on the quantity and type of waste received in the previous year.

That landfill gas captured and burnt be eligible to generate offsets within the compliance market. The permits received could be used to offset the requirement to acquire permits or sold in the compliance market alongside offsets from forestry.

This approach is considered to offer the strongest greenhouse gas abatement signals to the sector by:

- i. encouraging pre-treatment of waste prior to landfill to reduce the quantity of organic matter in the waste stream, including composting, with the potential landfill of composted waste (this however does not take into account the fact that under the present scheme there is little incentive for landfill operators to move towards diversion of waste if they are passing costs on to customers/ratepayers and recouping their costs in this manner);
- ii. encouraging improved gas capture technology; and
- iii. supporting improved technology for the direct measurement of gas emissions from landfills.

The proposed approach reduces the risk of landfills being abandoned without funds to meet future permit liabilities.

The Green Paper contemplates the generation of offsets only from forestry activities due to difficulties in measurement. However, the generation of offsets from capture and burning of landfill gases is readily measurable and verifiable and would simply represent a transfer through time of a proportion of the permits acquitted at the time waste was consigned to landfill.

Recommendations: That operators of landfills exceeding the threshold size be required to acquit permits based on the quantity and type of waste received in the previous year. The number of permits to be acquitted would be estimated using the models accepted by the NGERs during that year.

That landfill gas captured and burnt be eligible to generate offsets within the compliance market. The permits received could be used to offset the requirement to acquire permits or sold in the compliance market alongside offsets from forestry.

3. Offsets

3.1 Renewable Energy Certificates

The status of Renewable Energy Certificates (RECs) in relation to the Carbon Pollution Reduction Scheme mechanism is not clearly outlined for Local Governments. There are several Local Governments in Western Australia engaged in 'landfill gas to energy' projects which generate RECs and these projects, should RECs be affected or negated by this Scheme, are liable to lose a significant portion of their income from these projects. While the operators of these facilities would still be able to generate energy from their landfill sites, the limited offsets may disallow the sale of the related RECs.

Approximately half of all RECs are derived from landfill gas. From this perspective RECs are critical to the achievement of the Government's renewable energy targets and the CPRS must allow these to continue to be generated. In light of the fact that the Federal Government looks to be expanding the Mandatory Renewable Energy Target (MRET), it makes clear sense in both a political and environmental respect to allow energy generated by landfills (in landfill to energy projects) to generate and on-sell RECs. Again, the sector has invested heavily in these innovative technologies and needs to be assured that their innovation will be rewarded and not penalised by the Scheme process.

Recommendation: That the Federal Government clarify the status of Renewable Energy Certificates into the future and in relation to the Carbon Pollution Reduction Scheme to assure REC generators that their investments are secure under this process.

3.2 Emissions Trading & the Voluntary Market

The Association does not support the position of the Green Paper on very limited offsets as effectively it reduces the Carbon Pollution Reduction Scheme to a regulatory measure, rather than utilising its significant capacity to support the development of

innovative technology. Put very simply, permitting carbon credits to reduce permit liability would further drive investment into abatement technologies and reduce emissions.

The CPRS Green Paper argues that an Emissions Trading Scheme is preferable to a tax because Governments cannot possibly know who can effectively reduce emissions at what cost – the Association concurs. However, the CPRS is specifically targeting gross emissions to the atmosphere. The environmental objective is net CO₂ levels in the atmosphere. By ignoring offsets part of the opportunity is being overlooked. The Paper states “Offsets also do not increase national abatement as the provision of credits into an emissions trading system allows additional emissions in the covered sector.”¹⁹ yet draws on a position that “if abatement costs are lower overseas, it would be more cost effective to purchase the abatement abroad rather than reduce emissions at home (Reference) This latter statement fails to acknowledge that purchasing abatement from abroad also allows additional emissions in the covered sector

The Association agrees that there are difficulties in determining baselines and business as usual. However it argues that there are mechanisms available that have been proven in this area; the Federal Government’s own Greenhouse Friendly™ scheme has been in operation for a number of years and has considerable experience, expertise and credibility in this field.

The Association acknowledges the purpose of the scheme in ensuring compliance, but feels that the incentives measures in this case (the ability to create carbon credits to sell into the compliance market) in the case of encouraging abatement, are likely to be as valuable to the newly created carbon market as the penalty measures (the ability of the Government to regulate emissions through the scheme). This is because it encourages those industries not covered by the scheme to develop innovative low carbon projects and products, which those industries captured by the scheme might procure in order to reduce their liabilities, effectively supporting and developing the ‘supply’ side of the market.

It is the position of the Association that access to the compliance market should be allowed for those projects which have demonstrated verified additionality under the Greenhouse Friendly™ model. Effectively the Carbon Pollution Reduction Scheme has largely dismissed the stringent ‘additionality’ test by rejecting offsets, which again disadvantages those early movers who have invested significant capital and ongoing costs in abatement technologies. The Carbon Pollution Reduction Scheme has ruled out this option at this stage.

If the preceding remains true for the sector the Voluntary Emissions Trading Market may be the only opportunity that remains open to those waste industry leaders who have opted for early action on emissions abatement projects, particularly Alternative Waste Treatment facilities. If this is to be the case the Federal Government must make clear the opportunities for covered sectors in this respect. If a waste facility has invested in alternative technology, significantly abating greenhouse emissions at a ‘beyond business as usual level’ and has generated verified carbon offsets from that process through the Greenhouse Friendly™ construct (which mirrors the Kyoto Protocol construct) it should certainly be allowed to sell those offsets into the voluntary market. The voluntary market at least provides some incentive to ensure abatement and environmental outcomes at lowest cost. While the Voluntary Market has no direct impact on Federal Government financial concerns, the Association asserts that it must clarify the shape of the market

and the verification/stringency tests that will be applied to voluntary projects into the future.

Recommendation: The Association asserts that offsets/permit (generation) should be allowed for industries investing in projects with significant 'additional' abatement outcomes. While the Association believes that these offsets should be available for sale into the compliance market, should this option not be considered, it is imperative that these industries are able to make use of the voluntary market to compensate some of the costs of the projects.

4. Costs, Risks and Support

4.1 Measurement and Reporting

The Association does not consider the estimation methodologies proposed within the Scheme Green Paper to be stringent enough to ensure accurate reporting. This is both a liability and responsibility that the Federal Government will have to absorb should the proposed methodologies be found to be flawed. If the onus for estimation and reporting is to fall to Local Governments in this instance, Local Government will take no responsibility for the accuracy of the data supplied through a flawed collection system. Although Local Governments will take all care to ensure that reporting is consistent with the approved approach, should that approach not be adequate this should not be a liability that Local Government should have to carry.

Additionally it needs to be made clear that landfill operators will have no additional liability if the estimation process approved under NGERs and used to estimate liability for CPRs certificates is subsequently found to underestimate CO₂^e emissions. The landfill provider has no recourse to the depositor of historical waste in this instance, so should have no liability to acquit additional certificates.

While direct measurement technologies are not adequately developed at this stage to apply to the Carbon Pollution Reduction Scheme reporting mechanism (i.e. the NGERs/OSCAR system) the finalisation of the Scheme may prompt development in this area. The Association asserts that the measurement system used for reporting into the Scheme should be both rigorous and adequately tested to ensure accuracy. The Association also asserts that the best technology/estimation method available at the time of Scheme commencement should be used and that the Scheme should be made flexible enough to enable use of appropriate technologies as they are developed (prior to Scheme commencement). It should also remain flexible enough post design to ensure that improved methodologies/technologies can be incorporated over time, both to reassure the waste industry and to enable accuracy of emissions profile calculation.

Recommendation: That the Federal Government acknowledge that the current proposed estimation methodologies for waste/landfill emissions are not stringent enough to ensure reporting accuracy (or even accurate margin for error) and allow for flexibility within the Scheme to enable improvement in this area.

4.2 Strongly Affected Industry Ruling

The Green Paper has indicated that the Government does not presently consider that the waste industry demonstrates the characteristics of a strongly affected industry. This does not take into account the many major landfill operations which have made multimillion dollar investments in early abatement, in particular landfill gas capture for renewable energy generation and reduced organics to landfill projects, and may suffer disproportionate loss in comparison to late movers. This could particularly affect some Western Australian Local Governments, who create and sell carbon credits from their composting project (AWT), which reduces organics to landfill, thereby reducing methane emissions. This is aside from the significant investment into methane capture, now considered 'business as usual' by virtue of state legislation.

Importantly, both the AGO Report (Australian Greenhouse Office *Waste Sector Greenhouse Gas Emissions Projections 2006*, December 2006) and the Warnken Report (Warnken ISE, *Potential for Greenhouse Gas Abatement from Waste Management and Resource Recovery in Australia*, September 2007) note the significant contribution that the waste sector has already made to methane capture and management and the additional cost burden that these projects have created for the waste sector.

Recommendation: The Association recommends that the Federal Government reconsider waste as a 'strongly affected' industry on the grounds that many waste facilities (most larger sites) have invested significantly into gas capture and methane flaring infrastructure. Pass through of costs is also constrained to a degree by the capacity of the community to absorb rate, levy and gate fee increases.

4.3 Compliance Costs

While WALGA appreciates the difficulty inherent in ensuring that each sector is aware of and understands its specific requirements under the Carbon Pollution Reduction Scheme, there is a need for those entities providing essential community services, but which operate on a cost recovery basis only (Local Government fees and charges can theoretically be set only on a cost recovery with no profit), to be well informed and 'mentored' where possible through this process so that responsibilities do not become so onerous as to prevent reporting. The *Technical Guidelines* and the additional *National Greenhouse and Energy Reporting Act 2007* and *Methodology for Estimation of Greenhouse Gas Emissions and Sinks* are complex and specific, and may prove too onerous an administrative task for untrained Local Government officers to undertake, and as non-compliance with the reporting scheme implies large penalties and even gaol time for Chief Executive Officers, Local Governments are understandably concerned about this possibility. Estimates will be made in good faith, in cooperation with Government agencies and other experts and should be sufficient to meet CEO obligations as there is no profit incentive to mislead, however further clarification from the Federal Government in regard to reporting procedures ensuring CEOs are clearly apprised of their legal liabilities would be of value to the sector.

Given that Local Governments are unlikely to have internal resources capable of or trained to deliver reporting and regulatory outcomes, the expectation is that Local Government will externally resource the expertise for the emissions estimations and profiles and the reporting of said profiles for waste sector facilities. This may be feasible

for larger Local Governments or Regional Councils within their internal budgets (however this does not take into account the nature or extent of rising general costs to Local Governments from scheme implementation), but is unlikely to be feasible for the smaller Local Governments captured should the 10 kilo tonne CO₂^e threshold be enforced. It is also unknown as to whether or not there actually exists the resources in the market to fulfil this need for Local Government and if there are, how much these services are likely to cost Local Government to procure.

There is an additional measure of uncertainty around the scheme scope and how Local Governments will be captured within it. As many of the larger Western Australian landfills are owned and overseen by groups of Local Governments (Regional Councils) acting as one entity, a clarification on how emissions will be 'shared' would be of value. This is of particular relevance as equity issues may arise in terms of those Local Governments who have sole responsibility for landfill facilities, as opposed to those Local Governments who can share responsibility (and therefore reporting costs) through a Regional Council construct.

The Federal Government needs to assure the sector that a Local Government does not become liable for acquitting certificates for all of its carbon generating activities (street lighting, recreation facilities, transport etc) by virtue of its own land fill operation triggering the threshold. If this were to occur it would be an inequitable allocation of the CPRS burden between communities.

Unlike most other key industries to be covered under the CPRS, there is a significant (multi-year) time lag between the revenue generating activities of a landfill operator (receiving waste) and the potential or actual emission of CO₂^e to the atmosphere. Consequently the CPRS must be designed to both signal the CO₂^e cost of waste to current waste generators, and provide appropriate economic signals to waste managers to take cost effective steps to reduce greenhouse gas emissions both now, and into the future as new technologies emerge and pricing signals change.

Recommendation: WALGA recommends that each State be provided adequate local resources (i.e. dedicated officers seated within each state Environment Department), to mentor those sectors or individual entities struggling with reporting requirements through the process.

4.4 Household Costs and Compensation

On consultation with various waste industry professionals the consensus is that most waste facilities are likely to/would prefer to charge 'up-front' to cover the costs of the Carbon Pollution Reduction Scheme impacts. Essentially this means that the only way for landfill facilities to cover their costs is to pass these directly on to ratepayers through various mechanisms, the most popular being the significant raising of 'gate fees'. The facilities would purchase permits as waste comes 'through the gate' (i.e. over the weighbridge) and pass these on directly to the waste producer. These would then be acquitted as the methane is emitted from the site based on either emissions estimation frameworks or direct measurement. This creates a mechanism for immediate 'pass on' of costs and effectively charges ratepayers for the lifetime of the emission that their waste creates.

This assumes that Local Governments also pass these increased costs on to ratepayers through rates, fees or charges. Any increase of charges through the Local Government is likely to be unpopular, and would need to be assessed in light of the fact that Local Government has restricted capacity to pass on the additional costs arising from the CPRS in the form of rates (Productivity Commission confirmed very limited capacity for additional income from rates) and Fees and Charges (except those not set by State Legislation). As a result, when providing compensation to households and business for the costs resulting from the introduction of CPRS the Government must consider those additional costs that Local Government must pass on through increased rates, fees and charges and make it clear that it has done so (facilitating the process for Local Governments to recover the costs).

This would have significant impacts on ratepayers through increased costs however it is likely to drive abatement both by creating an incentive for individual and householder behaviour change and is also likely to encourage abatement technologies by operators.

In particular this is likely to make source separation of organics (for example – three bin system etc) more viable as householders impacted by rising costs are more likely to engage in reduction strategies in return for a reduction in waste recovery fees through the Local Government (in whatever way the Local Governments elects to disperse these costs). For landfill operators abatement technologies might become more appealing if they significantly reduce liability. It may also prompt the development of waste treatment options less commonly used in this country, such as incineration. This has particular relevance to the ‘zero rating’ of biomass. However if a Local Government already has a permit liability for a landfill site, it would be unlikely to close the landfill in favour of alternative options owing to the fact that it would still carry the permit liability for the site post closure for some 20 years. It’s unlikely that Local Governments could afford to absorb permit/CPRS costs and invest in alternative technologies. It may however consider diverting some of its waste streams to privately operated incineration facilities.

There is a possibility that the Carbon Pollution Reduction Scheme, by virtue of its influence on energy costs etc, might increase the cost of recycling processes and subsequently the cost of recycled products, further diminishing a constrained but environmentally valuable market.

Recommendation: That the significant costs inherent in the Carbon Pollution Reduction Scheme be equitably assessed and that all costs to ratepayers/community members be taken into account when allocating funds, both to ‘strongly affected industries’ (in which waste should be included by virtue of its inability to pass on costs) and to householders.

4.5 International Competitive Disadvantage

Competitive disadvantage in an international context arises from the fact that while the waste sector in Australia is set to become a covered sector, it is not covered in corresponding international markets (i.e. under the EU ETS). While ‘credits’ in some form can be generated by waste avoidance/AWT projects overseas under a variety of legislative and market mechanisms (CDM, JI etc), Australian waste industry proponents will have limited opportunity to take advantage of this option to reduce their liability and therefore limited ability to compete in this international trading opportunity.

From this perspective it is important to make clear the applicable linkages with the international market and to ensure that, if importing of Kyoto compliant units is to be allowed subject to project types, then Australian CPRS units are also afforded the same privileges (i.e. exporting of corresponding units be allowed). With this in mind it follows that setting a price cap on Australian permits makes it unlikely that exporting and trading in the international market will occur, at least in the short term. It is clear that the Australian CPRS cannot directly link to the EU ETS by virtue of its price cap and if this is to remain the case the Federal Government needs to make clear how the international markets are to complement each other and who can buy in, at what level.

Further reducing the waste industry's already constrained opportunities by making impossible any trading into the international market seems to further limit the capacity of this sector to respond effectively to the Carbon Pollution Reduction Scheme implementation.

Recommendation: That international consistency and equity be ensured and maintained in the development of the Scheme and that interaction with international trading schemes be assured and supported by the Federal Government.

In Conclusion

WALGA has some general concerns that the roles and responsibilities of Local Government are not clearly defined within the scheme design and asserts that these need to be better addressed in subsequent papers/legislation/regulations, as Local Governments exist to serve a community function and are not a profit making entity, yet legal liability will fall to the Chief Executive Officer of the Local Government should they be unable to comply with the requirements under the Act.

The Carbon Pollution Reduction Scheme operates as a penalty mechanism, legally forcing some industries to comply with mandatory requirements. In this case however, there is not necessarily a need to mandate innovations, as the waste sector is currently implementing a range of best practice carbon pollution reduction options and both the State and Local Government is encouraging these practices. In the case of the waste sector, the Association raises the issue that making those innovations unviable through the Carbon Pollution Reduction Scheme and ensuring that the only reason for abatement is reduction of liability seems counterintuitive in terms of producing carbon abatement and servicing broader environmental outcomes.

Many of the larger Regional Councils, who operate across several Local Governments, have been developing and implementing gas capture, alternative waste treatment and efficiency measures for some years and have been very successful in their pursuit of reduced emissions (see Southern Metropolitan Regional Council Submission). It is significant that the Carbon Pollution Reduction Scheme process may actually reduce some of those good works to unviable operations, creating a direct disincentive to abatement strategies

The Green Paper document does not imply any kind of specific resourcing for Local Government in relation to the development or implementation of the Carbon Pollution

Reduction Scheme, despite the significant impacts it is likely to have on the sector. The costs can largely be diverted to the community through Local Governments, however it is important to note that these costs will be significant when aggregated (increased costs of energy/street lighting, waste & landfill collection and gate fees, increased construction and maintenance costs) and are likely to be both unpopular and attributed to Local Government (rather than attributed to the Carbon Pollution Reduction Scheme).

The Paper is also largely dismissive of core environmental outcomes, focussing instead on the market mechanisms by which greenhouse gases might be reduced. While the Association considers this a worthy goal, if greenhouse emissions reductions outcomes come at the risk of negatively impacting on the environment (as is evidenced by the limited offsets rulings and some waste disincentives), then one form of damage is merely replaced with another, creating an untenable and environmentally inequitable situation, presumably contravening the basic tenets of the Scheme.

It must be recognised at this juncture that Local Government fulfils a number of essential community services and that many of these are statutory requirements of Local Government. Waste Management and street lighting are two of the fundamental services that Local Government provides that are considered essential and statutory; therefore Local Government has the responsibility and liability for the provision of these services. Significantly, these are the two services most likely to be affected by coverage under the Carbon Pollution Reduction Scheme.

It needs to be acknowledged that while this paper focuses directly on waste sector impacts, households / business and waste managers have complementary opportunities and responsibilities in reducing greenhouse gas emissions from waste. It is likely that the direct pricing signals to households (to reduce, recycle etc) will be poor tools to effect behaviour change as it is unlikely to be cost effective to weigh and classify waste from each property in the foreseeable future. Consequently education and behaviour change based on environmental values remains important and worthy of funding consideration into the future. Additionally, some household responses may be counter-productive and lead to other undesirable consequences such as anaerobic decomposition of domestic compost heaps etc and relevant educative processes will need to be employed to ensure that household response to cost impositions does not increase emissions rather than reducing them.

To conclude WALGA recommends that in the White Paper impacts of the scheme on Local Governments be given a specific section in the document (rather than being scattered throughout) and explored further than has currently been afforded to the sector. It is also recommended that the report indicate what resourcing will be provided to Local Governments and via what mechanism, to assist with the implementation of the Scheme. It is further recommended that the consultation timeline and process for such an important document be amended and extended to meet the needs of the Local Government sector and other similarly affected bodies, particularly if those bodies provide key community support functions which might be affected by this scheme.

Appendix 1: Landfills Impacted by 10kT and 25kT Carbon Pollution Reduction Scheme Thresholds for Waste Sector.

Location	Annual Tonnage	Proximate to a Regional Centre?	Possible Response to Inclusion in ETS
Albany (Bakers Junction)	5,000	Population 33,000	Slated to close and amalgamate with larger Albany Refuse Site. 10kt threshold may stall these plans.
Newman	8,000	No Population <10,000	Anticipated that adjoining councils would join with this landfill. However, 10kt threshold may impose additional liability, halting consolidation. If consolidation continues then organics diversion may be encouraged.
Margaret River	12,000	Yes	Reduce organics to landfill to reduce chances of tripping a 10kt threshold. If likely to trip threshold, could consider merging landfill in Shire of Busselton.
Manjimup	12,000	No Population 10,000	In current operation could stay below 10kt threshold through organics management. However, likely to work with Bridgetown and other surrounding councils, which could bring it close to 25kt threshold. A 10kt threshold may discourage merger, whereas 25kt threshold may encourage positive organics management and gas controls in order to avert carbon liabilities.
Collie	13,000	Yes	10kt threshold could encourage closure and participation in regional landfill despite having no current plans to do so. Low level landfill. Transfer station operating well.
Kambalda West	13,000	Yes	Due to long life of landfill, it may trigger threshold, encouraging closure and consolidation with Kalgoorlie.
Karratha	14,312	No. Population 15,000	Likely to trip 10kt threshold. Could encourage organics diversion and/or possible gas capture to keep below 10kt threshold.
Carnarvon	20,300	Population 6,000	Likely to trip 10kt threshold. Could encourage organics diversion and/or possible gas capture to keep below 10kt threshold.
Northam	22,000	Yes	Likely to trip 10kt threshold without active management. Could encourage organics diversion and/or possible gas capture to keep below threshold
Esperance	25,000	Population 14,000	Likely to trip 10kt threshold without active management. Could encourage organics diversion and/or possible gas capture to keep below threshold
Albany	25,000	Population 33,000	Could choose to keep two landfills operating to stay below either 10kt or 25kt thresholds.
Armadale	35,000	Yes	Likely to trip 10kt and possibly 25kt threshold without active management. Could encourage gas capture to keep below threshold.

Location	Annual Tonnage	Proximate to a Regional Centre?	Possible Response to Inclusion in ETS
Geraldton	35,000	Population 35,000	Could possibly stay below 25kt threshold if they keep their multiple landfills operational. Unlikely to get below 10kt threshold, but should encourage organics diversion and/or possible gas capture to minimise carbon permit liability.
Broome	50,000	Population 14,000	Would trip 25kt threshold. Planning to put in gas capture at some point – plans could be accelerated by ETS.
Dardanup	50,000	Yes	Likely to trip 25kt threshold. Additional costs of gas management could provide additional stimulus for similar sized landfills at Busselton, Australind, and Harvey and smaller landfills at Margaret River and Collie to consolidate.
Port Hedland	50,000	No (population 18,000)	Would trip 25kt threshold however would encourage organics diversion and/or possible gas capture to minimise carbon permit liability get below threshold
Busselton	50,800	Yes	Likely to trip 25kt threshold. Additional costs of gas management could provide additional stimulus for similar sized landfills at Bunbury, Australind, and Dardanup and smaller landfills at Margaret River, Harvey and Collie to consolidate. Risk of council diverting waste to smaller landfills if threshold is 25kt. Could be averted if threshold is 10kt.
Kalgoorlie - Boulder	60,000	Yes	Would trip threshold. Unlikely to get below threshold, but should encourage organics diversion and/or possible gas capture to minimise carbon permit liability.
Australind	80,000	Yes	Likely to trip 25kt threshold. Additional costs of gas management could provide additional stimulus for similar sized landfills at Busselton, Australind and Dardanup and smaller landfills at Margaret River, Harvey and Collie to consolidate. Risk of council diverting waste to smaller landfills if threshold is 25kt. Could be averted if threshold is 10kt.
South Cardup	200,000	Yes	Would trip thresholds
Henderson	200,000	Yes	Would trip thresholds
Baldivis/ Rockingham	350,000	Yes	Would trip thresholds
Tamala Park	350,000	Yes	Would trip thresholds
Red Hill	400,000	Yes	Would trip thresholds