DRAFT Response to the Productivity Commission

Waste Management draft report – May 2006

Introduction

This submission has been prepared by the Environmental Protection Agency (EPA) on behalf of the Queensland Government, in response to the Productivity Commission's draft report *Waste Management*, May 2006.

The Queensland Government welcomes the opportunity to respond to the draft waste management report prepared by the Productivity Commission for the Inquiry into Waste Generation and Resource Recovery. This assessment of the current activities is timely and may assist in the development of national and jurisdictional waste and resource efficiency policy.

The Queensland Government is currently involved in the development of strategic policy regarding waste generation and resource efficiency, in program delivery through agreements such as the National Packaging Covenant and in providing advice regarding to purchasing practices to minimise waste generation and increase green procurement.

Several government agencies also provide direct funding assistance to industry and local government for industry development and introduction of best practice waste management and resource recovery systems. The Queensland Government is certainly interested in any analyses that may assist in improving waste management practices and enhancing resource efficiency in the state.

Local governments and the waste management industry in Queensland have for several years been requesting stronger government intervention in some areas of waste management and resource recovery, primarily in the area of pricing signals for waste disposal.

The Productivity Commission Inquiry into Waste Generation and Resource Efficiency has raised the profile of waste management activities and the need to address some of the fundamental issues surrounding waste management not only at a local or State level, but also nationally.

There are many areas where waste management and resource efficiency would benefit from a nationally consistent approach, just as there are areas that are better managed through State and local government programs and actions, and industry responsiveness.

The Queensland Government agrees with many of the broader findings in the draft report, however, there are several important areas that could benefit from further consideration. It is apparent that the development of waste policy should be guided by best practice approaches, where the policy objectives, costs and benefits are fully considered and understood, and that the policy selected provides the best return to the community.

The Queensland Government also shares the view of the Commission that nationally consistent data is necessary in order to support policy development.

Broadly, however, the Queensland Government believes there are opportunities to strengthen the draft report before the final report is presented. In general, the Queensland Government believes that the draft report has not fully explored the policy issues regarding waste generation and resource efficiency, instead focusing on a narrow definition of waste management. This issue provides the basis for Queensland's submission to the draft report.

1. Waste management and resource efficiency policy framework in Queensland

The following section provides an overview of the policy framework used by the Queensland Government for waste management and resource efficiency. The primary policy tool for waste management and resource efficiency in Queensland is the *Environmental Protection (Waste Management) Policy 2000*.

This Policy provides a framework to make consistent and fair decisions that—

(i) ensure waste is managed in a way that is consistent with ecologically sustainable development; and
(ii) minimise the impact of waste on the environment including, in particular, the impact of waste so far as it directly affects human health; and
(iii) minimise the amount of waste generated from all sources; and
(iv) promote efficiency in the use of resources; and
(v) promote the maximum use of wastes as a resource; and
(vi) otherwise achieve continuous improvement in the standard of waste management activities.

The Policy also provides for State and local government planning for waste management and for the preparation of waste management programs to—

(i) minimise the amount of waste generated; and
(ii) promote efficiency in the use of resources.

The waste management hierarchy and principles are also outlined in this Policy to provide a decision-support framework for prioritising waste management practices to achieve the best environmental outcome. The hierarchy is discussed further in section 7.

The following sections are a response to particular issues or findings in the Productivity Commission draft report.

2. Terms of Reference

The Queensland Government welcomed the Terms of Reference for the Productivity Commission Inquiry into Waste Generation and Resource Efficiency, which stated:

> *In undertaking this Inquiry, the Commission is to examine ways in which, and make recommendations on how, resource efficiencies can be optimised to improve economic, environmental and social outcomes. This will include an assessment of opportunities throughout the product lifecycle to prevent and/or minimise waste generation by promoting resource recovery and resource efficiency.*

However, a fundamental issue within the draft report is that the Commission has failed to address the full Terms of Reference (TOR) of the Inquiry in that resource efficiency issues have been ignored. This occurred because the Commission essentially amended its TOR by equating resource efficiency with economic efficiency, as per the discussion in Box 1 of the Overview of the draft report.

The definition of "waste management policy" used by the Commission in compiling this report is very narrow and appears to focus only on waste disposal. The issue of

resource efficiency appears to have been ignored, with the focus squarely on waste management and disposal. In ignoring resource efficiency, product life cycle issues have also not been addressed, leaving the conclusion that current waste management practices involving landfill disposal are acceptable.

The major flaw in the assumptions of the report is that waste generation and resource efficiency can, and should, be treated as separate and isolated issues.

The findings, conclusions and recommendations of the report fail to identify and understand the links between waste generation and resource efficiency. By recommending that the two issues be dealt with independently, perverse outcomes may result.

By addressing each issue separately, intergenerational equity is also unable to be addressed, as the clear message of the report is that there are sufficient "holes in the ground" for waste disposal and the landfill externalities (particularly for inert wastes) are low enough that the recovery of resources from the waste stream, or action to reduce resources going into waste, is not warranted.

The Commission contends that the issue of intergenerational equity will be dealt with by letting the market decide, whereby if a resource becomes scarce enough, increased prices will drive consumers to alternatives. This view is at odds with the principle of Ecologically Sustainable Development, which is embodied within Queensland Government legislation.

Due to its narrow focus, the draft report findings and commentary are clearly out of step with community attitudes towards recycling, resource recovery and landfill disposal.

While the Inquiry and subsequent report have served to raise the profile of waste management in Australia, the report has done little to assist in providing a solid foundation on which to build a framework and direction for improved and more efficient practices.

Much of the commentary on the report from various sectors has reached the conclusion that the draft report rejects the fundamental objective of reducing resource consumption and fails to address lifecycle issues associated with the landfill disposal of recoverable resources, on the premise that landfill externalities for a "modern landfill" are low and therefore there is no driver for intervention to recover these resources. It is suggested that this issue, whether real or perceived, will need to be carefully managed by the Commission if the report is to have any credibility in the broader context.

3. Waste externalities

The externalities associated with waste generation and disposal is a complex issue. The draft report states that the externalities for a "best practice" landfill with gas capture are less than $5.00 per tonne, and for a best practice landfill without gas capture are in the range of $5.00 to $25.00 per tonne.

The reality of landfilling in many areas of Queensland is that a number of landfills receiving putrescible and inert wastes across all waste streams are not best practice landfills. Potential waste disposal impacts include air, water and land contamination, loss of land for future use, community issues concerning loss of amenity due to noise, odour, dust and waste transport, as well as devaluation of neighbouring properties. The more removed from "best practice" a landfill facility is, the greater the externalities for that site will be.

Waste generation, as well as disposal, also has externalities that are often not accounted for. Externalities associated with waste generation include the costs of processing a resource input that may end up as waste and the cost of handling and disposing of the material as a waste, including labour costs, storage and transport, as well as the disposal gate fee.

Methods for calculating the environmental costs and benefits of waste disposal and resource recovery need to be improved. However, the draft report rejects the impacts of waste disposal and resource recovery, whereas it would have been more beneficial to focus on better approaches to measuring these impacts.

If the Commission is advocating a divide between upstream and downstream impacts of waste generation, there is a need for the Commission to demonstrate or recommend further work in this area to show how strategies can be delivered to deal with waste generation and resource efficiency without adverse impacts and perverse outcomes resulting for either sector.

4. Analysis of costs and benefits

The draft report does raise some valid points, particularly with regard to the need for rigorous analysis of the costs, benefits and risks of policy direction. The report also highlights that market-based instruments, as with most policy instruments, require sound targeting in order to be successful.

This finding, while accurate, ignores the existing recognition by governments of the need for cost benefit analysis (CBA) to be undertaken in the development of waste management policies. The Regulatory Impact Statement process used by state governments to identify and analyse the impacts of regulation or policies provides for the identification of economic, environmental and social impacts on industry, the community and government.

The Commission's argument for rigorous CBA is supported. It is important that such considerations be transparent to decision makers, so that the full costs and benefits of options are known and communities are better placed to make reasonable decisions on the various options/choices regarding where funding priorities lie (eg weighing up if they would prefer to spend money on health care, environment, law enforcement or education).

The report, however, supports a limited CBA approach, based on waste disposal externalities such as the cost of leachate impacts, be undertaken before proceeding with other options such as advanced recycling or resource recovery programs.

A limited CBA, such as that supported in the report, would not adequately reflect the full economic issues associated with a lifecycle assessment of waste reduction and recovery. A lifecycle assessment would highlight costs, returns and externalities associated with the production and transport of the material that ends up as waste. This would lead to a better understanding of the system – to determine whether and what action to promote resource efficiency is warranted.

The limited CBA approach does not take into account the important social preference for waste reduction and recycling. For instance, the Environmental Protection Agency (EPA) regularly receives strong opposition to new landfill development proposals, despite these facilities proposing modern design and emission controls (the Productivity Commission concludes that modern well-designed landfills have minor externalities). The EPA believes that public opposition to such proposals is offset to a

certain degree by requirements on new landfill proponents to undertake resource recovery activities at the site.

There is enormous public support for recycling services. Many local governments have come under pressure from the community to provide some form of recycling service (either a kerbside or drop-off program) such is the public willingness to participate in recycling. In many of these local government areas, the provision of a recycling service could be described as financially marginal at best, however the local government often sees the social benefits of providing the service as overriding the financial cost.

5. Achievements of current policies and programs

The findings and discussion in the report appear to largely dismiss what has already been done in waste policy development in Australia and there is little or no recognition of the successes to date.

In Queensland, improvements made by local governments, often with the support of the Queensland Government, in waste recycling have made substantial gains in resource recovery and efficiencies.

While the Productivity Commission report does not appear to criticise current levels of recycling, the direction of the conclusions, which focus on waste disposal externalities rather than resource conservation, may damage current recycling efforts by undermining public and government confidence in the benefits of recycling practices.

The Productivity Commission's comments concerning recycling in regional areas do not take into consideration examples of successful kerbside recycling systems and continuous improvement practices that are being undertaken in regional Queensland. An example, provided in Attachment 1, is the partnership between Townsville and Thuringowa City Councils in North Queensland, where recycling yields were doubled to above average levels, contamination reduced and overall savings of more than $600,000 a year to the community from improved collection and sorting efficiencies and marketing of materials.

In 2001, the Queensland Government enacted legislation through amendment to the *Environmental Protection Act 1994* and subordinate legislation *(Environmental Protection (Waste Management) Regulation 2000)* to allow a waste to be considered as a resource for the purposes of beneficial use of that material. This is in recognition of the fact that some by-products have the potential to be used beneficially as a replacement for a raw material or a resource intensive manufactured product.

A beneficial use approval removes impediments to resource use and streamlines the process to use this material rather than dispose of it. This process makes the recovery of some waste streams more viable economically, so encouraging greater recovery of the material that might otherwise be considered a waste.

6. Regional waste management by local governments

The report calls for local government waste contracts to be issued through a large, regional process in order to deliver better economies of scale and more efficient service delivery. In Queensland, the *Environmental Protection (Waste) Policy 2000* (EPP) requires local government waste management planning and encourages regional waste management planning.

The Queensland Government supports the legitimacy of joint, in addition to regional, local government service delivery as opposed to the report's assertion that regional authorities are the preferred model.

Several local government areas are providing cooperative waste service delivery with regional contracting on scales relevant to the size of the region and the number of Councils involved. For instance, an example of regional planning on a smaller scale is proposed work by four local governments (Gayndah, Monto, Mundubbera and Eidsvold) that make up the North Burnett Group of Councils Regional Waste Management Group. It is anticipated that this project will deliver data to enhance recycling opportunities for other small rural local governments and the promotion of recycling benefits.

Funding through the National Packaging Covenant is also being sought, some of which will be used to purchase a mobile baler to improve the recovery of recyclable packaging materials from the four local government areas. Due to their remoteness from recycling markets and their small population size, it is unlikely that these four local governments would be able to deliver a recycling service to their communities without taking in a cooperative regional approach.

In the South Burnett region, three local government areas (Kilkivan, Murgon and Wondai) have entered into a voluntary joint waste management collection service agreement in order to achieve improved waste management services for their communities. This process has worked effectively as there is genuine cooperation between Councils to making the process work for the benefit of all parties.

An example of local government cooperative regional planning and contracting on a larger scale is the Central Queensland Local Government Association, with details provided in Attachment 2.

7. Waste management hierarchy and targets

The Commission is critical of the waste management hierarchy where its use is applied in a linear decision-making process.

The Queensland Government supports the principles of the waste management hierarchy as a tool to promote opportunities to reduce the amount of waste generated and to encourage more efficient resource recovery and agrees with the Productivity Commission recommendation that the use of the hierarchy in a linear decision-making process is inappropriate.

The Queensland Government highlights that the policy framework developed for Queensland in relation to the hierarchy provides for a balanced and flexible approach to its application. The *Environmental Protection (Waste Management) Policy 2000* states that use of the hierarchy must take into consideration the economic, technological, environmental and social impacts of the hierarchy. The hierarchy is viewed as just one policy enabling tool to assist in supporting decisions regarding waste management and resource recovery and its use forms part of an integrated approach to waste generation at all stages of the waste management cycle.

The Commission is also critical of target setting, stating that the majority of targets are arbitrary and random. The Queensland Government notes the Productivity Commission's concern regarding the arbitrary nature of waste management targets.

However, without targets there is likely to be little incentive to drive improvements to inefficient practices in waste generation, consumption and disposal. Targets need to be applied within a policy framework and not as an isolated figure, in order to achieve

optimal environmental, social and economic outcomes. The setting of targets should also be accompanied by sound cost benefit analysis.

8. Data collection

One of the findings of the report states that further data collection is necessary and requests further information on this issue.

The Queensland Government supports accurate and reliable data collection, which is necessary to guide policy development, priority areas and target setting for waste management and resource recovery.

Data assists governments at a strategic level by helping to understand where there may be gaps in program development and delivery and where resources may be better spent in areas such as collecting information, public education and awareness and infrastructure establishment. Data also helps to provide a benchmark for improvement.

Linked to this is the need for a clear understanding of the purpose for collecting the data and how the data will be used.

For the last five years the Queensland Government has published an annual report on the state of waste and recycling in Queensland. Data includes information on waste generation, landfill diversion, resource recovery and local government per capita household recycling performance. Reports can be found at: http://www.epa.qld.gov.au/publications

The Queensland Government has used this data to provide benchmark information on waste generation, landfill disposal and resource recovery quantities from year to year. Progress towards increasing recycling quantities and diverting valuable resource material from landfill can be gauged using this information.

The data is also useful to provide an indication of the potential availability of material that can be obtained, leading to an evaluation of the cost-effectiveness of introducing a collection system or establishing markets or businesses in the area to use the material.

The collected data has also been used to assist in the development of a feasibility model for the collection of recyclable materials undertaken by consultants GHD on behalf of the Queensland Government as part of project funding in 2004 under the National Packaging Covenant. The consultancy was to investigate the transport and logistics arrangements for the transport of recyclable materials in Queensland, particularly from rural and regional areas.

Development of the model involved analysis of available waste data, including discussions with key stakeholders, analysis of existing and proposed relevant transport operations, recycling systems and recycling facilities in use and the costs associated with their current operation, as well as consideration of economies of scale and regional economic impacts of recycling programs and transport operations.

On the basis of the data collected a GIS-based transport logistics model was developed. Inputting available data into the model will help to inform the Queensland Government on the viable level of recycling in each region for various resources and the costs associated with recycling.

The model will also be able to inform users on changes in the viable recycling levels for each material in each area based on the input of recycling volumes into the model

and where resource recovery hubs should be located both strategically and economically.

The Queensland Government supports the need for standardisation of national data collection, particularly for the commercial and industrial sector where economic efficiencies play a crucial role in management processes. Standardised data collection is essential in order to provide a consistent and comparable measure of industry continuous improvement and commercial competitiveness and sustainability.

Nationally standardised data collection is necessary in collecting information regarding waste generation and disposal and resource recovery and availability, as well as in analysing the costs and benefits associated with the introduction of waste management policies.

Without some national consistency and the ability to provide the public with sound information, waste policies are likely to be inconsistent, with the potential for perverse outcomes to result. In the Australian waste management context, very few nationally agreed methodologies exist for the analysis of environmental costs and benefits and there are significant opportunities for standardised approaches in this area. It would be appreciated if the Commission could provide some guidance in this area.

9. Linkages

The report conclusions appear to have reduced the waste management industry to simply the collection, recycling and disposal of waste, without a clear understanding of the role of the waste management industry in its broadest terms.

There is also a large service provision component with waste management and associated logistical services, technological development, information transfer and diffusion and education and awareness services. These services have the potential to generate local and export income and to drive and promote resource efficiency gains among manufacturing, commercial and production sectors.

Gains in resource efficiency and reducing the generation of waste also have beneficial flow-on effects in energy and water use. The use of separate instruments to address waste and resource would in itself be inefficient and use may result in inequities and perverse outcomes. Waste provides a common link across industry sectors.

10. Conclusions and Recommendations

The Queensland Government acknowledges the considerable challenge faced by the Commission in undertaking this inquiry and agrees with one of the key points of the report, that *"waste management policy should be guided by best practice approaches to policy development, namely that objectives are clarified; all expected costs and benefits of different options are considered; and the policy selected that gives the best return to the community."*

However, as the Terms of Reference for the Inquiry have not been met, through application of the narrow focus on waste management, this fundamentally affects all the conclusions in the draft report.

It is recommended that the Commission:

1. Acknowledge in the final report the limitations of the conclusions by stating the failure to fully address the Terms of Reference (which included: *an assessment of opportunities throughout the product lifecycle to prevent and/or minimise waste generation by promoting resource recovery and resource efficiency)*;

2. Consider amending recommendation 13.1 to establish the coordination of nationally consistent data collection for the commercial and industrial waste stream to facilitate evaluation and comparison as a priority area; and
3. Undertake further work to fulfil the original Terms of Reference for the Inquiry by addressing resource efficiency issues.

While this is not the ideal outcome, as waste generation and resource efficiencies are inexorably linked, there is the likelihood of resource efficiencies being forgotten under the current report, as there are no recommendations in this regard.

ATTACHMENT 1 – TOWNSVILLE CITY COUNCIL AND CITY OF THURINGOWA COLLECTIVE KERBSIDE RECYCLING CONTRACT

In 2001, recycling levels in Townsville City Council and the City of Thuringowa were below those of comparable Queensland regional cities, such as Rockhampton, and also below the recycling average for the State. The previous systems had high contamination levels, an inefficient materials recovery facility (MRF) and a lack of markets for collected materials.

In late 2002, Townsville and Thuringowa City Councils replaced their previously separate household kerbside recycling collection systems with an integrated best practice program servicing both cities.

As part of the work funded under the National Packaging Covenant, the Environmental Protection Agency developed model contracts that were based on earlier efforts by Brisbane City Council. The Environmental Protection Agency, and the Local Government Association of Queensland worked with Townsville and Thuringowa councils to use the model contract to implement performance-contracting measures into their recycling program.

Since implementation of this system, the recycling rate has almost doubled within 18 months, from a low of 26 kilograms per person to over 50 kilograms per person, while contamination levels have reduced from 40 percent to 11 percent.

With more recyclables now being sold into secondary resource markets rather than being disposed of to landfill considerable economic benefits have been achieved. Townsville City Council alone is achieving considerable annual savings through the new arrangements.

Going from a cost per household of $14.00 in 2001, the household recycling program now delivers a net benefit of $17.00 per household, providing a $31.00 per household turnaround. Other benefits include increased community participation, greater householder care about what is placed in the recycling bins and improved environmental awareness that comes from knowing that the program works.

This case study and other Queensland achievements under the National Packaging Covenant can be found at:
http://www.epa.qld.gov.au/publications/p01611aa.pdf/National_Packaging_Covenant_Queensland_achievements_20002005.pdf

ATTACHMENT 2 – LOCAL GOVERNMENT REGIONAL CONTRACTING AND PLANNING

An example of regional waste management planning is the Central Queensland Local Government Association (CQLGA). CQLGA has developed a regional waste management strategy, the purpose of which is to develop strategies to reduce waste production, promote resource recovery and recycling, and to realise better management of solid wastes and secondary resources within the CQLGA region.

The primary aims of the Regional Waste Management Strategy are to:

- minimise risk through better waste management practices and greater understanding of waste streams;
- introduce new ideas and technologies in waste and recycling and materials handling;
- undertake contract sharing (regional contracts) for services to assist with lowering costs for member councils and ensuring that remote councils receive a similar service to that which is available to coastal councils; and
- enable resource and information sharing for all councils.

The implementation of the Regional Waste Management Strategy has had considerable flow-on benefits and created momentum among CQLGA member councils to upgrade recycling collection systems and facilities, and has lead to a strong regional focus on Commercial and Industrial (C&I) waste diversion. Councils in the region are working collaboratively, and have identified that to gain maximum benefit in resource recovery and recycling, a regional approach is required.

To that effect CQLGA applied for funding under the National Packaging Covenant to undertake a regional integrated recycling project. This proposal is an integrated and holistic approach to increasing recycling yields (domestic and commercial and industrial) in urban communities across Central Queensland. It is a three stage project to be introduced over three years, with a built in, annual evaluation process at the conclusion of each stage. Funding has been approved for the first two stages of the project.

The targets outlined in the project proposal are for the achievement of fifty percent diversion of the currently landfilled Municipal Solid Waste (MSW) recyclable component and thirty percent diversion of estimated C&I glass and cardboard by the end of the 2008 financial year. Diversion will be measured against current MSW audit data and C&I audit data to be gained in the 2006 year of funding.

CQGLA councils believe that by working cooperatively on a regional basis these targets are achievable and that opportunities are provided for smaller remote councils to participate in resource recovery and recycling activities where it would not be economic for them individually.

An example of contract sharing is the regional green waste mulching contract. This contract is a cooperative approach for mulching green waste at a single fixed price per cubic metre across the entire Central Queensland region. The combined group contract rate for processing and the certainty of servicing is of enormous benefit to smaller and remote member councils who had considerable difficulty achieving this on their own.