Sinclair Knight Merz
Cnr of Cordelia and Russell Street
South Brisbane QLD 4101 Australia
PO Box 3848
South Brisbane QLD 4101 Australia

Tel: +61 7 3026 7100
Fax: +61 7 3026 7300
Web: www.skmconsulting.com

SKM

Project Manager – Queensland's Waste Strategy
Consultation
Natural Resources and Environment
Department of Environment and Resource
Management
GPO Box 2454
Brisbane QLD 4001

13 August 2010

Queensland's Waste Strategy Consultation DERM.docx

Dear Sir,

Response to Queensland's Waste Strategy 2010 – 2020 - Waste Avoidance and Recycling Consultation Draft

SKM Enviros are pleased to provide this response to Queensland's Waste Avoidance and Recycling Consultation Draft. This response has drawn on the waste and resource management skills of SKM Enviros.

The proposed strategy provides a clear direction and focus for waste and resource management in Queensland for the next decade by focusing on waste avoidance, more effective use of resources and resource recovery. While the targets set within the strategy are challenging, the introduction of the disposal levy for Commercial and Industrial (C&I) waste and Construction and Demolition (C&D) wastes should provide an economic incentive for business to change their behaviour. However, to be successful there is a need to ensure that the necessary infrastructure is developed and that there are markets for recycled material. To this end, if disposal bans for priority products are to be phased in, it is important that the timetable for such a programme to be developed quickly. This will provide a degree of certainty for industry and allow the necessary investment in infrastructure to be made with a greater degree of confidence.

Linked to this is the need to ensure that any markets developed for recycled products maximise the benefits of recycling by ensuring that both market development programmes and local authority sustainable product procurement strategies are in place. Throughout the strategy reference is made to increased materials recycling and establishment of new markets. Careful consideration is required to ensure high material quality is achieved (minimising excessive processing and reject costs). This can be achieved through the development of material quality standards for dry recyclables and organic materials for the sector. All recycling markets should where possible aim to service high end value market applications and seek to minimise the life cycle impact of different materials and products.

Engagement, information and education are central to the successful implementation of this strategy. Within the strategy reference is made to "establish data collection systems to

accurately report on the amount, source and type of waste and recyclables". There are good examples of successful Waste Data collection systems across the globe. A particularly good example is the Waste DataFlowSystem in the UK, which mandates all local authorities to report on a quarterly basis their waste collection, process and disposal information which is validated and disseminated by central government.

National public communication programmes in the UK such as "Recycle Now" have been a key driver in bringing about behaviour change and achieving increases in the levels of municipal waste recycling.

Within the strategy reference is made to alternative waste treatment technologies. These technologies can help achieve high diversions of waste from landfill, but can in some cases introduce technical and financial risk to authorities. There will be need for clear central guidance on the suitability of these technologies and a programme to disseminate this information to the various stakeholders. A good example of this was the DEFRA New Technologies Demonstrator Programme in the UK and the national local authority training programme.

There are 3 specific areas where consultation is sought. A response is provided below.

'Do you think these targets are an appropriate measure for waste avoidance... Can you suggest other targets or measures for waste avoidance?'

It is clearly appropriate and important to include targets on waste avoidance; however the proposed targets may benefit further consideration:

- How will the first target of reversing the trend in waste generation be measured?
- Should the strategy be looking at specific reduction in the quantity of waste generated as opposed to reversing the trend for an annual increase (i.e. stabilisation)? And while setting a specific reduction target is easily measureable, such targets can be difficult to achieve as highlighted by Victoria's experience which is documented in the Towards Zero Waste Progress Report 2007-08.
- On the second target, it would again be useful specify the targeted level of reduction and also to split the per capita generation between different waste streams i.e. a per capita generation rate and reduction rate for municipal, C&I and C& D. By doing so it would allow the effectiveness of different actions to be assessed for example the impact of Actions 20 & 21 on the amount of C&I waste produced (it should be noted that this approach is used in Action 17). This approach would also allow different targets to be set for different waste streams and would reflect on the fact that it is likely to be easier to reduce C&I compared to municipal waste.

Any targets introduced need to be time based such as "To achieve a zero growth in total waste generation per household by 2015" or "By 2020 to reduce the levels of waste generation to those in 2007".

'Do you think that the recycling targets are appropriate... Do you think there should be targets for other specific streams (e.g. for green waste)...'

The recycling targets for municipal solid waste are challenging, particularly for 2014. There is a need to build on the existing kerbside collection systems, maximising the performance of these systems through effective monitoring and evaluation which is designed to drive service improvements delivering good yields through:

- high participation rates;
- high material recognition rates; and
- low contamination rates.

However it is unclear what will drive the change in behaviour and the improvement and development in services, as the disposal levy does not cover municipal waste. The lack of a levy on the disposal of municipal waste does highlight a potential weakness in the strategy.

In considering the appropriateness of the targets a clearer understanding of the material available within the waste stream is needed and this has been recognised by the acknowledgement that composition audits may need to be undertaken. Understanding the composition of different waste streams is critical if materials are to be effectively targeted within collection systems and the required infrastructure developed. In addition, understanding waste composition is an important element in the selection and scaling of suitable waste treatment/disposal technologies.

Consistency in the data collected is a key factor. There is a need to consider if the data will be collected via statistically representative national 'sort and weigh' surveys or at a local level by each local authority. If the latter approach is preferred, clear central guidance is needed to ensure comparability of the data collected in national statistics as the timing and scope of these surveys is invariably different.

To achieve the levels of recycling suggested will require a focus on the very efficient use of the recycling infrastructure provided. This will include collecting materials in which traditional markets may not exist. Market development programmes and infrastructure will need to be developed to service this demand.

There will need to very clear guidance on the definition of recycling and which materials can be recorded as 'recycling' in the targeted calculation depending on the recovery process. For example, does metal recovered from incinerator bottom ash count as recycling for municipal solid waste?

Whilst material specific targets would be appropriate for most materials, targets for green waste could be problematic. Action 15 considers the use of a 3rd kerbside collection bin to collect garden waste only. In the UK, evidence suggests that the introduction of these schemes can increase the total waste generation by attracting garden waste material previously not entering the waste management system. These schemes can also increase the costs to local authorities, diverting material previously collected through centralised civic amenity collection points to extensive collection logistics at the kerbside. A target specific for green waste would encourage the introduction of these systems. A ban on specific materials entering landfill sites could be an alternative option to increasing the recycling targets for specific materials.

'Do you think we should have a reduction target for litter and illegal dumping...and if so, what should this target be... Should we have a landfill diversion target... If so, can you suggest an appropriate diversion target...'

A target for litter and illegal dumping would be beneficial, although the target set should be informed by the data collected. This will determine the scale of the problem. The target can then bring about the appropriate level of behaviour change. Any proposed target may benefit the following consideration:

- How will the targeted be measured?
- Will it be time based?
- Will it be weight based or occurrence based?
- What systems will be in place to monitor and record the information?
- How will it be administered?

Targets on the diversion of biodegradable waste from landfill could be included as part of the strategy as this would help the achievement of a number of aims including:

- makes the most of recycling and resource recovery opportunities;
- increases the life of landfills; and
- helps to mitigate the climate change impacts of waste generation and disposal.

The proposed targets may benefit further consideration:

- Biodegradable waste diversion targets would be consistent with Action 15 within the strategy, although any target would need to be based on the levels of biodegradable waste in the various waste streams. It would also be consistent with Strategy 7 in the National Waste Policy.
- Would a landfill target just focus on diversion or would it be specific to biodegradable waste?
- How would this system be implemented and administered?
- What fiscal and economic measures are in place to help achieve these objectives and finance alternatives?

Examples of targets set in other parts of the globe are:

- Reduce Biodegradable Municipal Waste (BMW) landfilled to 75% of 1995 level by 2010
- Reduce Biodegradable Municipal Waste (BMW) landfilled to 50% of 1995 level by 2013
- Reduce Biodegradable Municipal Waste (BMW) landfilled to 35% of 1995 level by 2020

These target levels would not appear unreasonable to help achieve the strategic objectives identified within the strategy and create the economic conditions to establish alternative material markets and waste treatment technologies.

We trust the above response is of assistance to you.

Yours Faithfully

David Silcox
Phone: +61 7 3026 7266
E-mail: dsilcox@skm.com.au

Dr Darren Perrin
Phone: +44(0) 161 874 3635
E-mail: dperrin@globalskm.com