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Commissioner Weickhardt

Waste Generation and Resource Efficiency
Inquiry
Productivity Commission
LB2 Collins St East
Melbourne Vic 8003

8th February 2006

Dear Commissioner Weickhardt

SITA Environmental Solutions is one of Australia's leading recycling and waste management companies.

With more than 43,000 commercial customers we are the largest provider of recycling and waste services to the commercial sector of the Australian economy.

SITA welcomes the Productivity Commission Inquiry into waste generation as a precursor to a new round of reform and action to put Australia on a more sustainable path regarding resource consumption and reuse.

SITA strongly endorses the concepts of recycling and waste minimisation and of recovery of waste for its highest and best resource value.

Please find enclosed SITA's submission to the Inquiry which is accompanied by a series of supporting documentation sent under separate cover.

SITA wishes to make a presentation to the Commission at the presentation stage.

Yours sincerely

Philippe Maillard
Managing Director

Productivity Commission

Waste Generation and Resource Efficiency

Summary:

SITA welcomes the Productivity Commission Inquiry and makes the following summary points:

- Market based instruments (MBI) drive waste and recycling reform
- The waste levy is the most significant MBI at present and the recent increases proposed in NSW are welcomed
- State Waste Targets are useful guidelines but they need to be specific, achievable and measured annually
- There is a lack of uniformity in the standard of operation of landfills nationally and particularly between rural and metro areas
- Full cost accounting should be implemented for all landfill operations to ensure that all costs are incorporated into gate fees including post closure remediation, leachate control and gas extraction
- All states should increase the levels of their landfill levies – both as an economic driver but also as a source of funds for waste infrastructure and reform programs. However hypothecation, whilst valuable is not as important as the economic drive of the levy itself
- Landfill levies should be applied across regional Australia as well as metro areas
- Waste planning needs major reform nationally with all states needing to define waste, to implement specific waste policies and to promote waste infrastructure in spite of local resident concerns
- Education remains important in waste reform
- EPR schemes are an important albeit small part of an integrated waste strategy. They will never cover significant waste streams as the application

of EPR is restricted to specific streams with a known generator and specific commodity type

- Landfill contracts should be limited to 5 years in duration for disposal of putrescible waste (as per the recent NSW decision) to limit long term contracting of waste to cheap landfill disposal and eliminating competition in the form of the more expensive Alternative Waste Treatment

- There is a need for specific regulatory provisions and standards for the application of AWT composts to land

Introduction – SITA Environmental Solutions

SITA Environmental Solutions is one of Australia's leading environmental waste management companies.

Our industry knowledge and experience combined with our comprehensive service range enables SITA Environmental Solutions to provide customers' with 'cradle to grave' environmental and sustainable waste management solutions.

SITA operates in all mainland States and the Australian Capital Territory.

Our Services include domestic, bulk and commercial / industrial collection, waste identification and resource recovery options, sorting, processing such as composting, autoclaving, product destruction, waste stabilisation, engineered landfill operations and transfer facilities.

We provide services to more than 43,000 commercial / industrial customers and more than 800,000 households each week across Australia.

SITA is bringing the best available technology to Australia. This includes our Biowise Composting plant in Western Australia, and SAWT (SITA Advanced Waste Technology) for the processing of municipal solid waste.

SITA is passionately committed to waste minimisation and sustainable waste management. This submission outlines SITA's responses to the major issues raised in the Productivity Commission Issues Paper Dec 2005.

SITA has commented on the primary policy and regulatory issues affecting waste resource recovery and minimization from the Productivity Commission discussion paper. It has attached a number of supporting documents which are supplied to the Commission under separate cover.

SITA is an active member of the Waste Management Association of Australia and a key proponent of further extensive reform in the waste management sector.

SITA Environmental Solutions

- One of Australia's largest solid waste service providers
- Largest service provider to the C+I sector
- 43,000 Commercial /Industrial customers nationally
- 6 major depots and 20 service outlets nationally
- 4 engineered landfills
- 2 transfer stations
- 3 resource recovery facilities
- 1 compost facility
- AWT proponent in many tenders
- 18 municipal contracts throughout Australia, servicing over 800,000 households each week
- Opened Australia's first fully engineered sanitary landfill
- Introduced the first split mobile cart for recycling services
- Employing over 900 people including owner drivers

Waste Hierarchy

- **How was the waste hierarchy influenced waste management policy?**
- **What are the advantages and disadvantages of using the waste hierarchy approach to waste management?**
- **Under what circumstances and for which wastes, is it appropriate to proceed sequentially through this hierarchy?**
- **When would it be more appropriate to consider these approaches as option rather that an ordered sequence? For example, under circumstances would it be appropriate to forgo reuse or recycling in favour of energy recovery?**

SITA Environmental Solutions recognises that State Governments across Australia have expressed a desire to reduce waste to landfill, to increase resource recovery and maximise recycling.

SITA strongly supports these principles on the basis that they are good for the environment but also open up significant business opportunities in the waste, resource recovery and recycling markets.

The waste hierarchy is a useful guiding principle for waste avoidance, minimization and recycling.

Government intervention in the form of regulations, market based instruments and policies have driven improved recycling and resource recovery.

Unfortunately the pace of reform is slow and the pattern patchy.

Whilst most Governments recognise the Hierarchy in their policy instruments only a few have driven a proactive reform program in waste which has substantially reduced waste to landfill.

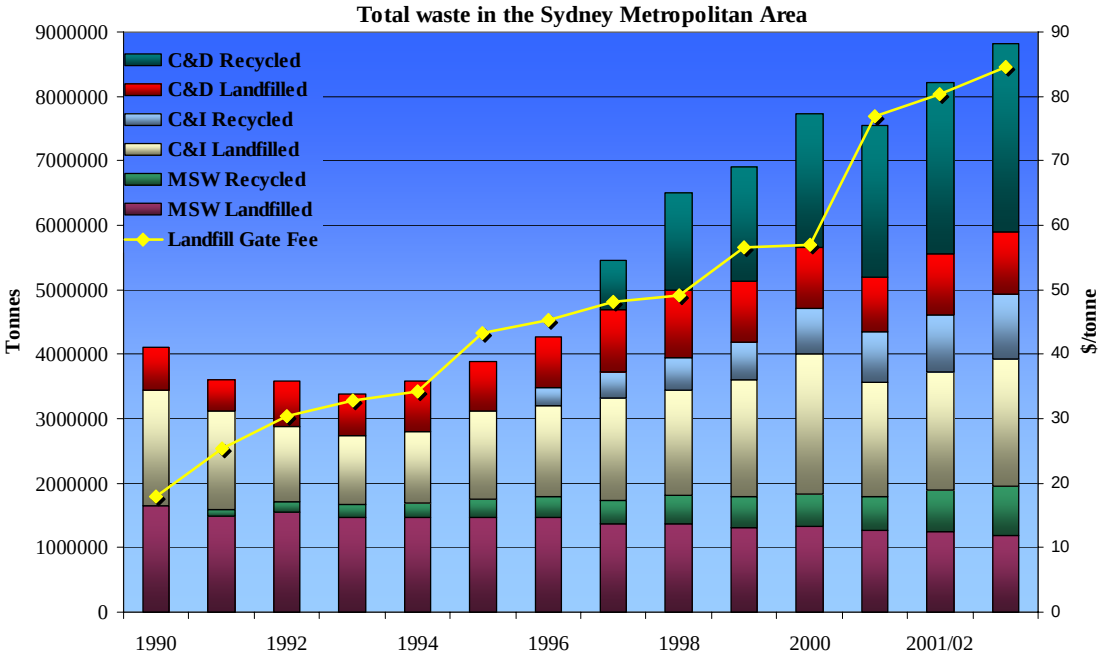
Targets

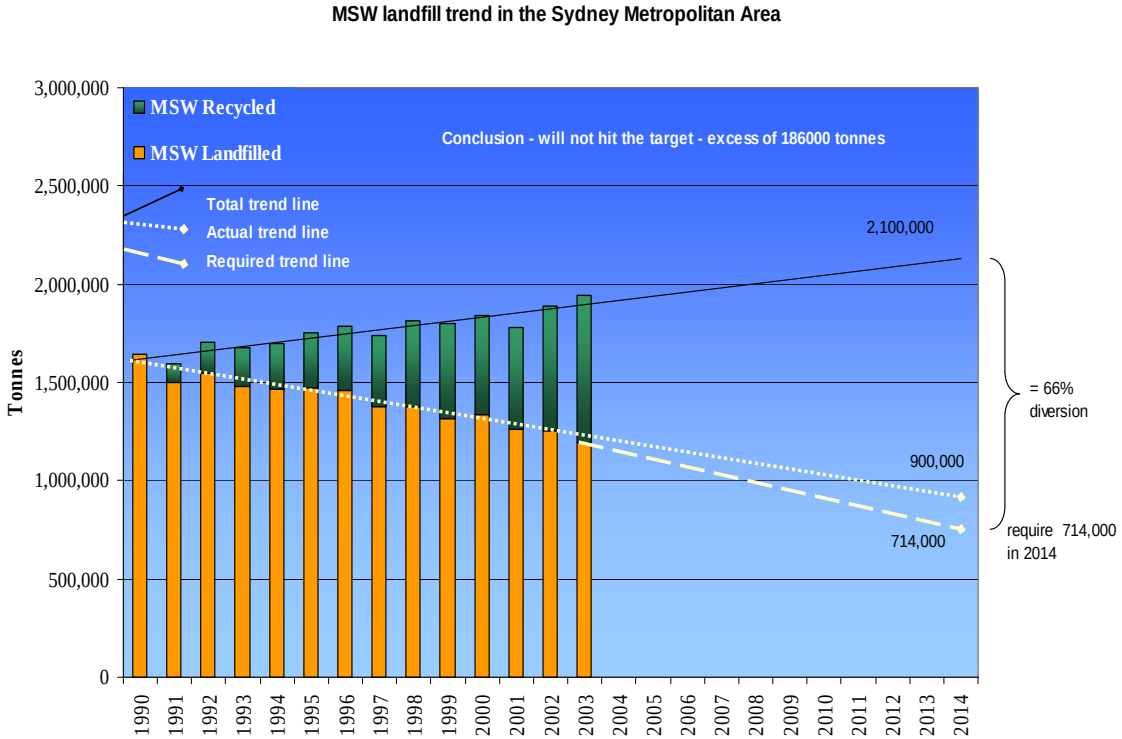
The graphs below were prepared by SITA and Hyder consulting on the growth in waste to landfill in NSW. SITA and Hyder have recently completed a similar analysis for South Australia.

The graphs show that on the policy settings prevailing in September 2005 waste to landfill was accelerating particularly for the C+I sector.

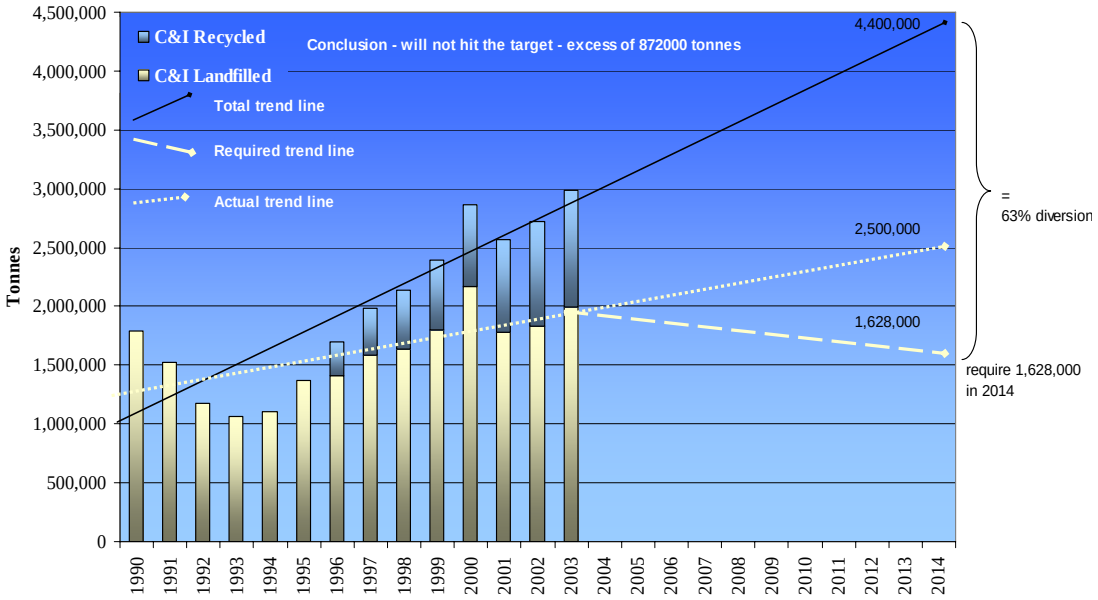
Neither the C+I sector nor the MSW sector were going to achieve their targets without government intervention to encourage source separation (increased parity between the cost of recycling and the cost of landfill), AWT (increased parity between the gate fee for an AWT plant and gate fee at landfill) and C+I MRFs (increased parity between the C+I MRF gate fee and the landfill gate fee).

In the absence of changes to the landfill levy (in the absence of some other regulatory intervention) the waste targets would not be met.

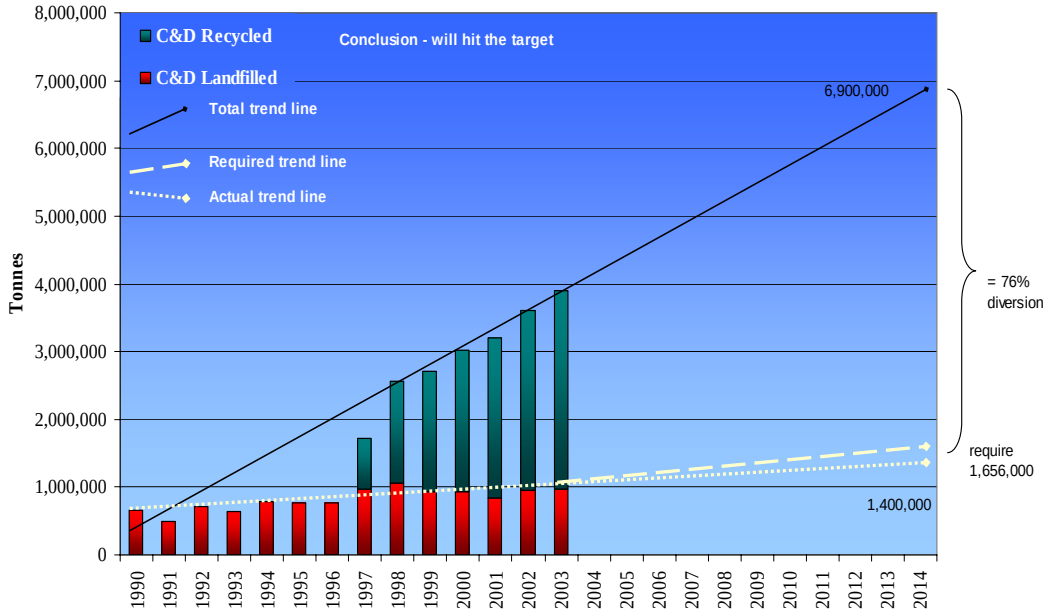




C&I landfill trend in the Sydney Metropolitan Area



C&D landfill trend in the Sydney Metropolitan Area



In December 2005 the NSW government acted to change the policy settings by:

- Increasing the waste levy from $22 to $58 per tonne over 5 years
- Removing the levy exemption for alternative daily cover
- Removing the exemptions for recycling and stockpiling waste on landfills

These changes were intended to drive further reform and SITA (along with the Waste Management Association Australia NSW division) strongly supports the intervention by the NSW Government.

SITA supports the establishment of government waste reduction targets and strategies including Zero Waste targets in SA, WA and ACT.

Whilst SITA supports targets it believes they should be:

- Specific to specific waste streams and periods (eg Zero waste targets are laudable but unachievable with current technology)
- Measurable – again specific streams and agreed measuring protocols (coordinated nationally)
- Long term with specific annual interim targets (so that achievement can be measured and tracked)

SITA believes that more significant interventions by governments are now required to meet government waste targets and to drive resource recovery and recycling.

SITA supports greater levels of resource recovery and therefore government policies to facilitate the establishment of economically viable resource markets.

Banning materials

The Government could have intervened to ban particular wastes to landfill. Bans have been used successfully elsewhere:

- German regulations requiring prestabilisation of putrescible waste prior to landfill

- European bans on E waste to landfill

SITA would support bans on particular wastes to landfill including electronics, white goods, oils and hazardous household waste, it believes that market based instruments are more effective for the bulk wastes which make up the waste streams.

Resource Efficiency

- **Are there any other interpretations of resource efficiency that should be taken into consideration when considering policy in the waste management area?**
- **How can Australia improve the economic efficiency with which resources are used in waste management and disposal?**
- **Are the levels of waste generation and disposal in Australia too high? If so, what is the basis for assessing this?**
- **What are the costs and benefits of the different approaches to waste management (such as reuse, recycling and energy recovery)?**

SITA strongly supports the existing State strategies for reducing waste to landfill. While we may be critical of the pace of reform the direction is the correct one.

SITA itself is one of Australia's leading landfill operators. However SITA believes that resources should be recovered for their "highest and best use" and not simply be disposed of in the most "efficient" manner to landfill. Efficiency in these terms reflects only current costs and not the externalities of continuous and accelerating resource consumption.

SITA believes that Full Cost Accounting (including externalities) should be applied to decision making in the waste, resources and recycling arenas. As such the one way flow of materials through the economy to landfill is both unsustainable and inefficient.

SITA believes the Australian economy will benefit more from job creation, wealth generation, product reuse and pollution avoidance by resource reuse, than it would by landfilling recyclable materials.

SITA is heavily investing in resource recovery technologies including:

- Alternative waste treatment technologies
- C+I sorting facilities
- Paper baling operations
- Kerbside recycling fleets
- Product destruction and recycling processes.

SITA believes that to be a leading waste management company in Australia requires leadership in policy advocacy, leadership in resource recovery investment and leadership in research and development. SITA is pursuing all of these streams.

Government Intervention

- **How large are the external costs of properly constructed and managed landfills and other types of waste disposal in Australia? What types of costs are involved? How do these costs vary according to the type of waste?**
- **What externalities are associated with other waste disposal options? Such as incineration and composting?**
- **Do these externalities warrant a government policy response?**
- **How large a problem is illegal dumping and littering? What types of waste cause most of the problems?**
- **What are the main costs of illegal dumping and littering?**
- **What are the most cost effective and policy and enforcement for limiting illegal dumping and littering?**
- **To what extent do negative externalities associated with resource extraction and materials processing (and other stages of the product life-cycle) result in non-optimal levels of waste?**
- **How important are market power issues in waste management? Are there barriers to entry in the markets for collecting and recycling waste and what are they?**
- **What competitive discipline do exports have on the market power of domestic processors?**

There is an absence of an overarching policy framework for recycling, resource recovery and diversion from landfill at a national level.

That absence has meant each State has created its own strategy and actions to achieve it.

The trends in waste diversion from landfill are currently heading in the wrong direction for most waste streams in most jurisdictions.

Whereas Europe has been driven by the European Directive and national interpretation of it, Australia has not had a consistent set of national waste policies to drive State programs.

In part this is a function of the constitutional separation of State responsibilities. However meaningful reform of waste requires strong state AND national leadership.

Regulatory Barriers

- **Are institutional or regulatory barriers preventing the uptake of better waste management practices and how?**
- **Are local governments sufficiently aware of best practice approaches to waste management that would suit their circumstances? What institutional constraints are preventing the adoption of best practices?**
- **What regulatory and institutional barriers are impending the development of markets for recovered resources? What is the case for removing these barriers?**

SITA believes a range of regulatory barriers and approaches are preventing the uptake of better waste management practices. These barriers include:

- absence of coherent and agreed definition of waste
- absence of ability to differentiate waste facilities from resource recovery facilities
- poor government tendering processes and systems (95% of all AWT tenders in the past 5 years have failed to produce a result)
- lack of appropriate Zones to permit waste infrastructure
- a lack of regulatory drivers for waste diversion, resource recovery, limits to landfill disposal
- inadequate policing of existing regulations to limit “cowboys” in landfill operations
- inability of State governments to “call in” significant developments such as AWT facilities and approve them in spite of local opposition
- lack of minimum standards and minimum recycled content policies by government to drive recycling
- lack of minimum planning standards for waste infrastructure

SITA supports the rapid roll out of AWT and resource recovery technology to process municipal and commercial waste and to achieve diversion of this waste from landfill.

SITA supports government regulations to ban or reduce particular wastes from landfill including:

- household hazardous waste
- paper and cardboard
- electronic waste.

SITA also supports strict regulation of waste collectors, recyclers and operators.

It is too easy for entrants to this industry to set up shop, avoid minimum regulatory and environmental standards and undercut the professional and law abiding operators.

To create a level playing field minimum environmental standards must be applied to all players.

Two particular groups must be strictly regulated:

- Illegitimate landfill operators who undercut properly functioning landfills

- Irresponsible trucking operators who run businesses in spite of OH+S standards, licences etc

Policy Options

- **How effective has the mix of policy instruments been in achieving efficient levels of waste? What policies have produced the most efficient outcomes?**
- **How are targets being set? What consideration is given to the social environmental and economic costs of achieving these targets? How should targets be set to optimise social, environmental and economic outcomes?**
- **How should Australia's performance in waste management relative to other countries be measured? What role is there for key performance indicators in making such comparisons and which key performance indicators are the most useful for public policy purposes?**

The private sector will not invest in large scale waste infrastructure such as C+I sorting plants or AWT, unless it can achieve:

- a site
- a guaranteed long term waste stream
- the right gate price (return on capital employed)

Without these three key preconditions being met the Government must fill the infrastructure and funding gap.

SITA and the WMAA recently investigated the cost for the NSW government to implement its waste strategy and achieve its targets.

Bearing in mind the NSW targets are far more conservative than other states (66% diversion by 2014 for MSW) it still required $134 million to be injected into infrastructure (refer table below).

This $134 million cost, the industry suggested, would need to be borne by the Government unless it changed its policy settings to make resource recovery and AWT infrastructure more financially attractive to the private sector.

To their credit the NSW government responded by increasing the waste levy fundamentally and irrevocably altering the gate prices payable for landfill – thus making resource recovery more viable.

The effect of this government intervention was to increase the likelihood of Councils entering long term contracts for the supply of waste to AWT's and that the gate fee chargeable reflects true operating costs.

Key Action Areas	Additional amount required to meet the target	Additional processing / diversion required to meet the target	Additional expense to extract these tonnes $/t	$M/yr
C&I Source Separation	2.1Mt more than now	0.84	25	21
C&I Mixed Sorting	2.1 Mt more than now	1.26	35	44
AWT – MSW	1.4 Mt more than now	1.50	35	53
Kerbside recycling	250,000 t additional recovery	0.25	-	-
Garden Organics	Additional 0.15 Mt/yr	0.15	30	5
National Packing Covenant	Additional 260,000 t	-	-	-
Away from recycling	Additional 50,000 t/yr	0.05	20	1.0
Other minor waste streams – tyres, mobiles…	Additional 40,000 t/yr	0.05	20	1.0
Education	-	3.30	3 per generator	10
TOTAL	-	-	-	**134.0**

This type of analysis should be completed by each State government in preparing its waste strategy and targets.

The interface of the targets with the funding of the necessary infrastructure and programs is the place for policy reform and action.

SITA is pleased to work with the Productivity Commission and individual state governments to develop costed and workable policy and infrastructure plans to deliver the State Waste Targets.

Recycling

- **How well have these policies worked in generating economically efficient levels of recycling? What policies or mix of policies are likely to work best in the regard?**
- **How useful is full life-cycle analysis in determining the environmental and economic costs and benefits of recycling various products?**
- **Are there particular products of locations for which disposal rather that recycling might be a more efficient option?**
- **How has government procurement policy affected recycling levels? How important is the demonstration effect of government actions?**

Recycling rates are mixed nationally.

Some products such as paper and cardboard are being successfully recycled both from the residential and the commercial markets.

However commercial recycling lags consistently behind municipal systems because of the heavy level of subsidy provided by local Councils.

Key areas of reform of recycling include:

- Glass breakage in MRF's is around 50%. Glass is inefficient in the kerbside system. Various proposals to remove glass from kerbside recycling should be considered including CDL on glass. There are mechanisms to limit shelf price impacts on glass products.

- Source separated recycling services in the C+I sector will need to be driven by either price increases for landfill or recycling rebates

- C+I dirty MRF's are required to achieve the waste targets. Again these will only be built by the private sector when they can achieve a return on capital. That requires either:

    - an increase in the cost of the alternative landfill disposal
    - recycling rebates payable on tonnes recovered
    - regulations requiring waste recycling and diversion
    - better market prices for the recovered materials

- Office white paper recycling rates are a lowly 11%. It remains considerably cheaper to landfill office paper than to install separate collection and transport services. Office white recycling rates will only increase when there is:
    - an increase in the cost of the alternative landfill disposal
    - recycling rebates payable on tonnes recovered
    - regulations requiring office white recycling
    - government purchasing requirements positively biased in favour of recycled office paper

- Agreement by local government on tendering processes to facilitate the implementation of new recycling technologies including AWT's and C+I sorting plants:

    - Development of standard AWT tender specifications
    - Identification of sites so that tenders assess technology and operating experience, not just which tenderer has an approved site
    - Agreements on cross boundary tender arrangements
    - Agreements on waste characterisation in the tender documents
    - Appropriate risk allocation and sharing
    - Removal of biases from tender documents

Pricing

- **To what extent do local governments pricing arrangements for waste collection lead to undesirably high levels of waste disposal?**
- **Where unit pricing has been introduced, has this proved efficient and effective? Has it lead to a reduction in waste disposal and/or an increase in recycling?**
- **What is the purpose of landfill levies? How should they be set?**
- **What impacts do landfill levies have on the illegal dumping of waste?**
- **Is it appropriate to hypothecate levies to other waste management activities? Does this provide the correct level of funding for such activities?**

SITA believes that local governments are generally aware of best practice approaches in relation to resource recovery and AWT. However to date, most Councils have baulked at accepting the increased costs that will come this the development and implementation of best practice approaches.

In pursuing its objectives for waste minimization and diversion from landfill, Governments have primarily two options – pricing or regulation.

SITA supports the targeted implementation of both pricing and regulatory instruments with the choice between the two being driven by efficacy and costs.

Waste levies and market based instruments

SITA supports the introduction of economic / market instruments to encourage diversion of waste from landfill and to encourage the establishment of economically viable and profitable resource recovery businesses. Market mechanisms includes but are not limited to, landfill levies.

SITA believes that a suite of instruments is required to drive waste reform nationally. Some instruments will need to be implemented nationally (EPR schemes), others at the state level (landfill levies) and others at the local level (gate fee at Council operated landfills).

SITA believes that EPR schemes, MBI's and landfill levies are complementary instruments to drive reform (refer extract below from MBI paper).

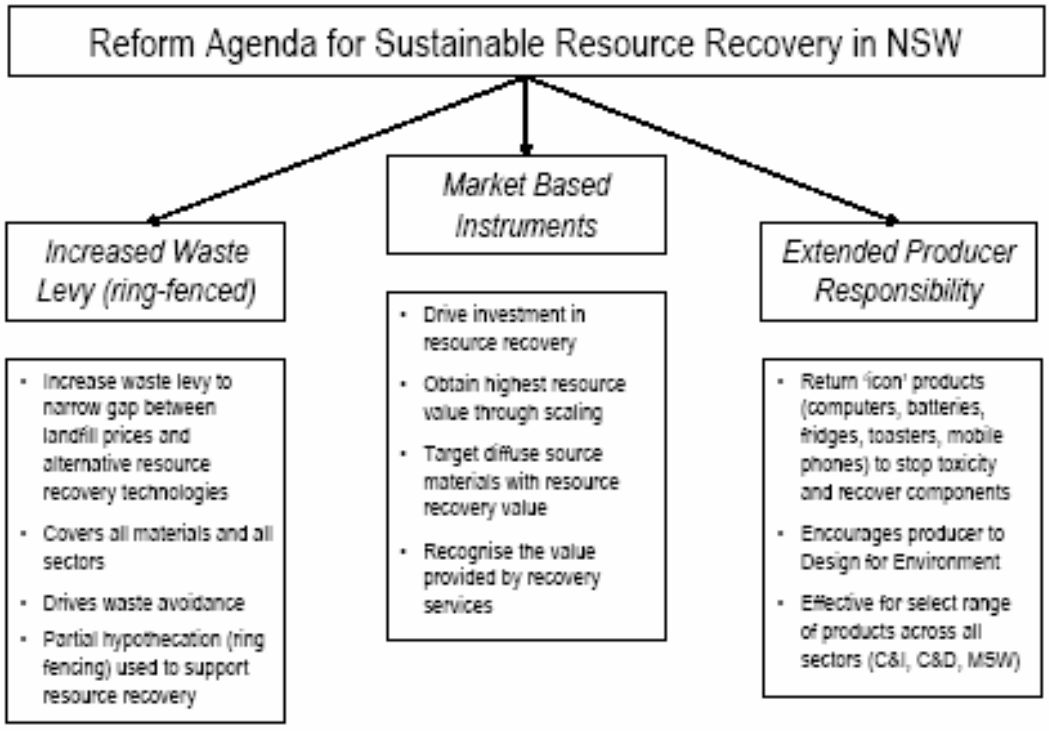


Figure 2 – Reform required if resource recovery and landfill diversion objectives are to be met in NSW

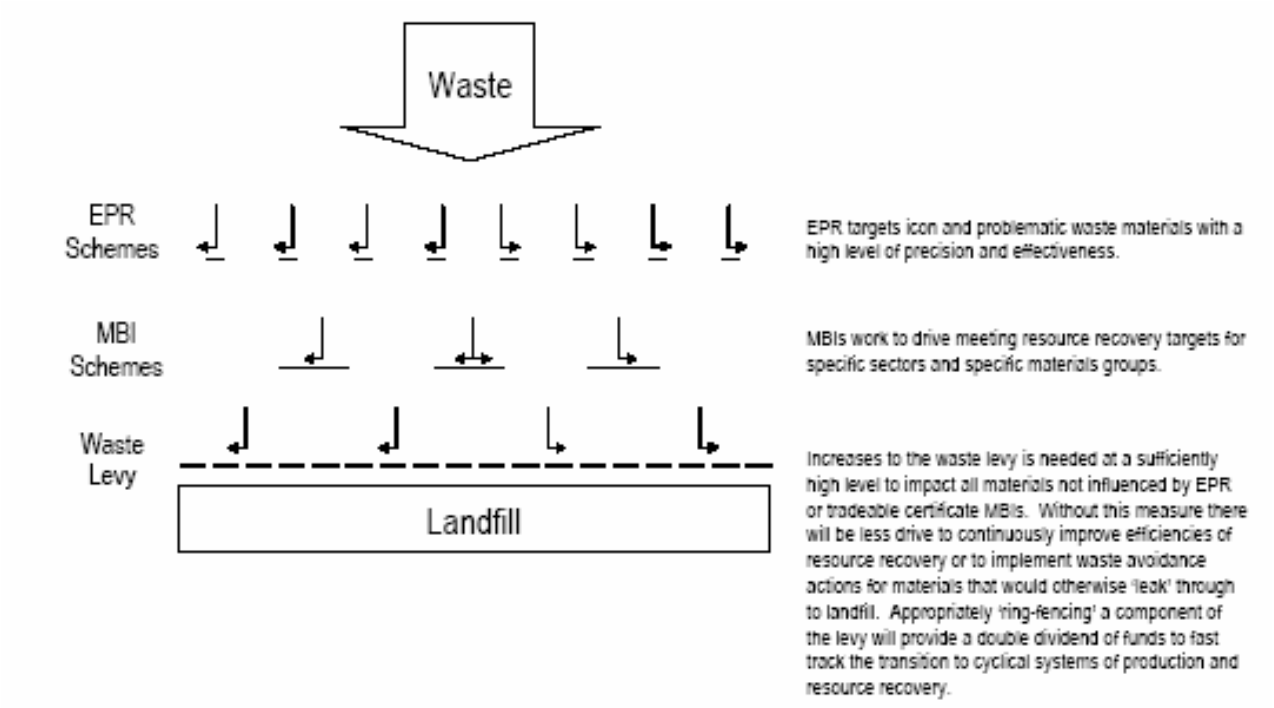


Figure 5 – The waste levy acts as the final safety net to impact all material types not influenced by EPR or MBI schemes and provides pressure to continuously improve recovery rates and efficiency

SITA (like most of the members of the WMAA) believes that the price of landfill is too low and that low landfill prices undermine commercial and domestic recycling systems.

SITA believes that the existing NSW landfill levy (as the highest levy in Australia) has a positive effect on reducing waste to landfill (albeit limited for some waste streams) and providing a financial incentive for waste generators to explore recycling options instead of landfill.

Landfill levies have the following effects:

- Increase the cost of landfill
- Make the higher gate price of recycling facilities more competitive
- Make AWT plants and MRF's more competitive
- Levy costs are passed on to the generator (somewhat like the GST) so have little impact upon the recycling operator's bottom line costs (contrary to ACOR's oft expressed position) (car recyclers importing cars into the Sydney Regulated Area being the exception to the rule)
- Rewards recyclers who are able to charge higher prices for their services vis landfill
- Is a "catch all" MBI which penalises final disposal to landfill
- Redirects materials back through the economy
- Is a bottom line cost for all waste generators providing an ongoing incentive for reform and continuous improvement

SITA believes that all state governments should implement landfill levies and set the price at a level which drives the necessary diversion from landfill to achieve the state targets.

SITA has a preference for the hypothecation of levy funds back to delivering the waste strategy, but this should not be a precondition for increasing waste levies. They perform a strong economic function over and above the revenue streams they generate.

SITA makes the following recommendations for the expenditure of levy monies:

1. local government kerbside recycling subsidies for best practice
2. local government subsidies for transport of recyclables from remote areas to markets
3. funding support for local government environmental education programs
4. funding support for local government investigation of AWT
5. funding support for local government litter and waste programs
6. infrastructure grants to build recycling and alternative waste systems
7. funding for public place recycling infrastructure
8. seed funding for new resource recovery and Alternative Waste Treatment infrastructure
9. infrastructure support for recycling from office towers
10. EPR related schemes
11. Contaminated land remediation including orphan sites

Whilst individual households are not generally responsive to landfill price signals in terms of waste generation rates, Councils as their agent are very price sensitive. The rise in the landfill levy in NSW has seen many more councils consider AWT technologies and source separated services such as green waste and kerbside recycling.

That is Councils are very landfill price sensitive and the application of landfill levies will drive AWT technology expansion – diverting waste from landfill.

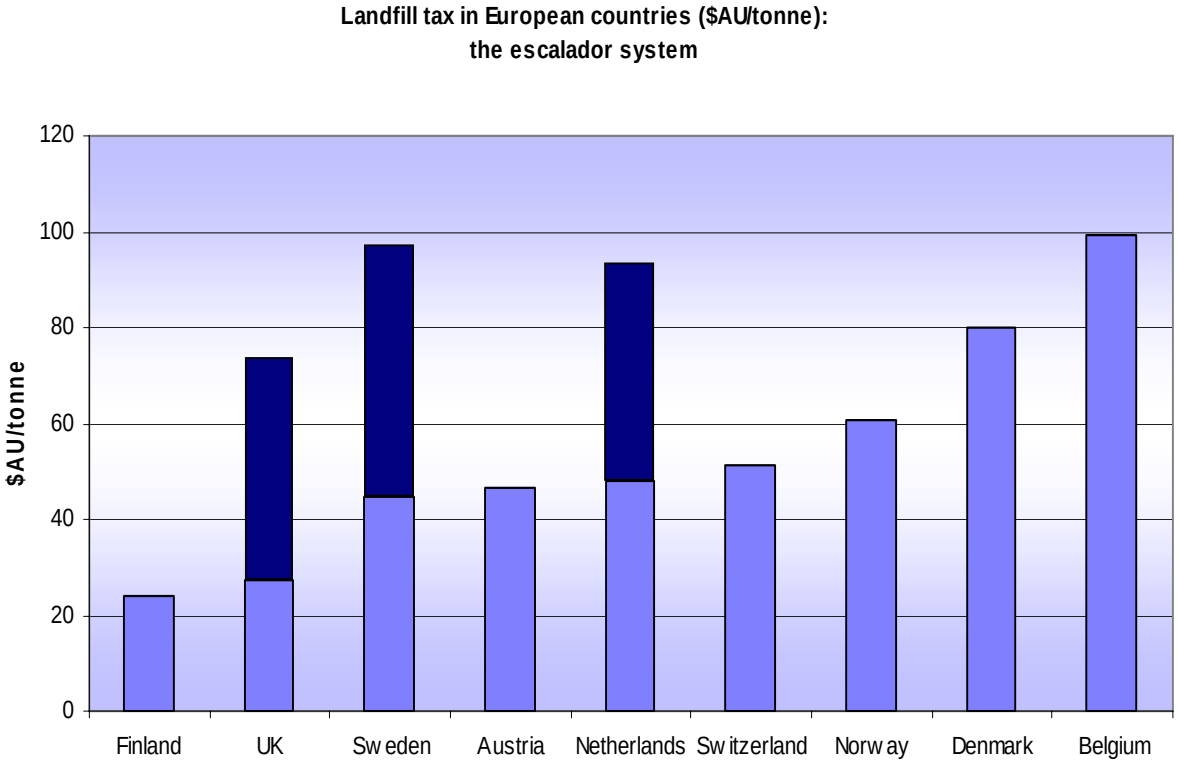
Discussions with many council officers indicate that future predicted and announced rises in the NSW levy are already having an effect upon Council deliberations on their long term waste strategies with an increase in officer expectation that AWT will be seriously considered.

SITA also believes that levies should be applied to all landfills in regional as well as metro areas. There is simply no rational justification for the use of pricing measures to drive reform in the City not being applied in the country.

If anything the comparative costs of recycling are higher, requiring a levy marginally higher to provide a bias for recycling. Of course the marginal utility of recycling in the country needs to be fully considered by the Productivity Commission. SITA does not support cross subsidizing the transportation of recyclables vast distances just to meet recycling targets.

SITA also supports Advanced Disposal Fees to fund end of life recycling and to create economically viable recycling businesses (refer EPR below)

Landfill taxes or levies are becoming widely adopted throughout the world. SITA has provided a summary paper on landfill levies from Europe and the United States in its supporting documentation. A summary graph is presented below.



SITA notes that levy increases on C+D and C+I waste streams will deliver significant increases in resource recovery because of the more elastic nature of these streams and their responsiveness to price triggers.

However the level of the levy is important. C+I waste to landfill has been growing nationally. The waste levy (and any other market based instruments) need to be set high enough to affect behaviour.

The fact that landfill disposal costs and the costs of collection are generally combined as a single invoice to a C+I waste generator means that as a price signal, the levy effect can be diluted. The higher the levy the stronger the price signal to the ultimate waste generator.

An increase in the levy therefore will flow through to changes in the C+I sector as well. That change will be manifested as:

- Increased source separation of waste on the generators site (steel, paper and cardboard, timber, office white paper, product recycling etc)

- Contracts to recycle C+I waste through “dirty MRFs) or C+I Materials Recovery Facilities (SITA is currently building two C+I MRF’s in Sydney)

Willingness to Pay for AWT technologies

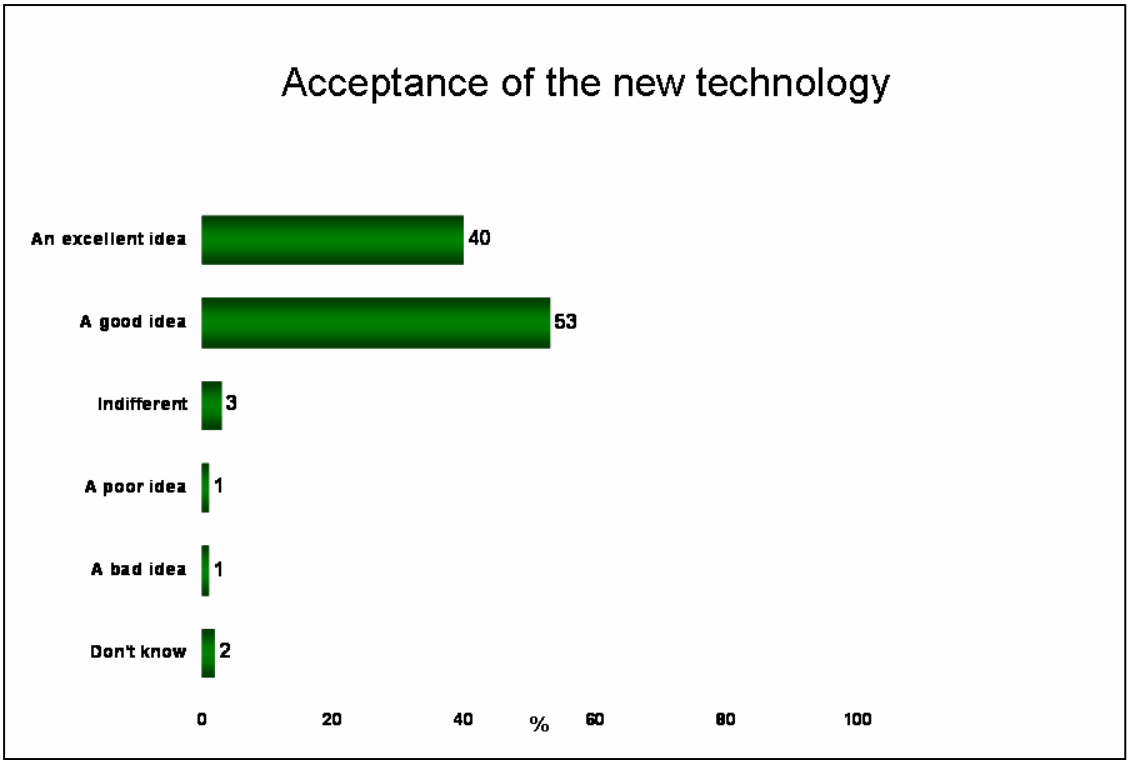
SITA and the AWT Working Group recently completed research on national willingness to pay for AWT technologies (attached research paper).

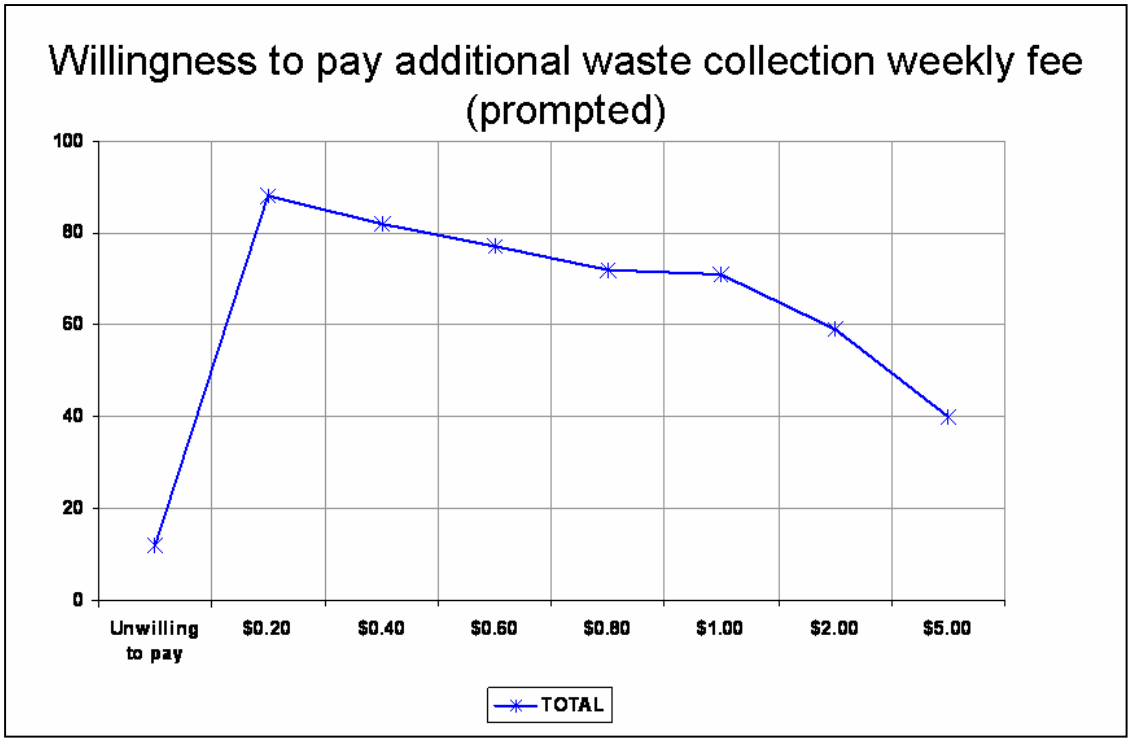
The key findings of the research, conducted nationally with a 2% margin for error were:

- More than 93% support for the concept of Alternative Waste Treatment of household waste (refer below)

- 70% of ratepayers would willingly pay an additional $1/week for AWT treatment of their waste

- This is equivalent to $50/year and greatly in excess of the required price premium between landfill and AWT


Acceptance of the new technology
An excellent idea
40
A good idea
53
Indifferent
3
A poor idea
1
A bad idea
1
Don't know
2
0
20
40
%
60
80
100



SITA and the AWT Working Group have provided the Commission a separate paper on the reform agenda required to deliver AWT technology across Australia. The paper was drafted by Hyder Consulting on behalf of the AWT Working Group.

Producer Responsibility

- **What are the advantages and disadvantages of extended producer responsibility and product stewardship schemes?**
- **How effective have they been in achieving optimal levels of waste?**
- **Which products are most amendable to these arrangements?**
- **How should importers be treated under these schemes?**
- **Who should bear the responsibility for the disposal of 'orphaned' products (that is those products in circulation before the scheme is introduced)?**
- **What are the advantages and disadvantages of the different regulatory options for setting up extended producer responsibility or product stewardship schemes: self regulation, co-regulation and explicit legislation?**
- **What should be the relative roles of industry and government in the development of such arrangements?**
- **How effective has the National Packaging Covenant (in both it's initial and subsequent forms) been in promoting optimal levels of packaging wastes?**
- **What is the most appropriate way of collecting products covered by an extended producer responsibility or product stewardship scheme?**
- **What is the role of levies in extended producer responsibility and product stewardship schemes?**
- **If producers are required to pay a mandatory levy, what other obligations should be placed upon them?**
- **What is the appropriate mix of producer levies and post consumer charges (including local government rates and tipping fees)?**

SITA supports government EPR schemes where they require producers of waste to take more active financial responsibility for end of life disposal.

SITA recognises that waste companies will only enter the recycling and resource recovery markets where they can make a fair profit and return on capital. Creating the right economic environment for this to occur is the role of government through schemes such as EPR and Advanced Disposal Fees.

Specific EPR schemes should be introduced for wastes which:

- Can be classified as uniquely identifiable
- Have a known generator who can be identified
- Can be diverted from landfill cost effectively
- Have a higher and better resource value or assist in protecting the environment through pollution avoidance

SITA supports the early and vigorous implementation of EPR schemes for the following waste types:

- Tyres
- Batteries
- TV's
- Computers
- oil
- Paint
- Pesticides

because these wastes meet the above criteria.

These waste streams have higher and better resource value, can be reasonably easily identified and lend themselves to source separation through dedicated collection systems.

To be effective EPR schemes must catch all of the waste type (eliminate "orphans") and prevent "free riders". As such they are more difficult to implement than "catch all" landfill levies or other more targeted MBI's. (refer attached paper on the relationship between MBI's, levies and EPR schemes.

In this context SITA supports the National Packaging Covenant EPR scheme only so far as it incorporates specific targets backed up by regulatory interventions to prevent avoidance and "free riders".

SITA supports Container Deposit Legislation (CDL) and believes it should be operated nationally.

CDL puts the costs of recovery and disposal with the generator of the waste and makes industry ultimately accountable for the end of life disposal

Regulation

- **To what extent has greater regulation of landfill efficiently ameliorated the external costs of waste generation and disposal? Is further or better targeted regulation necessary? What costs have these regulations imposed on landfill operators?**
- **What constraints are urban planning requirements placing on the efficient disposal and recycling of waste?**
- **How can or should waste disposal and recycling facilities be treated in an urban planning context?**

Minimum environmental standards of operation

SITA considers that all landfills must be managed to high levels of environmental performance and that minimum environmental standards should be applied to all landfills without exception whether urban or rural, government or private sector.

Currently many rural landfills, privately and publicly operated are exempt from a range of minimum environmental control requirements including standard waste cell development practices, leachate control systems (liners, leachate pumps and treatment processes), gas capture, monitoring and remediation provisions.

Where the absence of these measures poses a risk to the environment (which by definition they do), the landfill should be regulated and brought up to a minimum operating standard.

The increased cost to landfill operators due to greater regulations has been significant, especially with regards to the construction of landfill lining systems. The greater regulation requiring landfill liners however is considered a positive step towards ensuring the protection of the environment.

It is still the case however where there is a large variance between the landfill liner system adopted across all landfills. It is suggest that more targeted regulation be directed at these landfills that are not adopted best practices for landfill liner designs, including all landfills in regional areas of Australia.

Governments, state and local have been reluctant to enforce strict environmental standards on all landfill operators, preferring instead to establish arbitrary distinctions between rural and metropolitan landfill operations and public and private operations.

Provision for post closure remediation

SITA believes all landfill operators should be required to make financial provisions for post closure costs and remediation.

Operators who ignore post closure costs in their current gate pricing are therefore able to compete at a lower cost base than others who make such provisions. The playing field is not balanced.

In the absence of post closure provisions being extracted from current waste generators there may be no funding available when the post closure liabilities are realized. That may leave governments picking up the costs.

Only Victoria has guidelines for post closure remediation and this based upon a remediation period of 30 years after care. The Victorian standards are based upon the European model and could be rolled out to all state jurisdictions.

Ongoing role of landfill

SITA believes that landfills will have a role to play for the foreseeable future, as a final disposal option for:

- intractable waste
- residuals from AWT and recycling plants
- wastes not amenable to AWT or recycling
- rural regions where AWT is not feasible.

Definitions of waste and recycling

Definitions of waste and resource recovery differ state by state.

The same wastes can be classified differently and therefore have different costs of disposal depending upon which state it is in. For example in Victoria quarantine waste goes to deep burial whereas in other states it must be treated in an autoclave. In Western Australia some classes of medical waste can still be disposed of to landfill.

Resource recovery activities are caught under the same planning controls as landfills and transfer stations.

Specific provisions for recycling and resource activities should be built into local and state planning schemes to facilitate the establishment of resource recovery infrastructure.

For too long waste and resource recovery infrastructure development applications have been frustrated by local and often parochial interests.

SITA welcomes the NSW Government's recent decisions to include Alternative Waste Treatment Facilities as projects of state significance which can be called in and approved by the Minister.

SITA believes that AWT infrastructure, landfills and resource recovery plants which operate to service more than one local authority area should be classified as of state significance and be approved via a different mechanism to other local development applications.

Planning requirements

Many of today's landfills that are now surrounded by industrial estates and some residential estates were once located in open rural areas. In many cases the zoning of land has changed in recent years following the development of the landfills.

Looking to the future and the changes that need to take place to achieve the 'zero waste to landfill' policy, sizable pre-treatment facilities will be required. The most appropriate location for these facilities is on an existing landfills, due to the availability of land and the ease of disposal for any residual wastes that will still need to be disposed in landfills.

For this to be achieved it will be critical that local councils are willing to approve planning permits for the construction of such pre-treatment facilities on existing landfills, even though the landfills may now be surrounded by industrial or residential estate as a result of re-zoning.

Specific action is required at all levels of government to:

- define waste separately from resource recovery
- create new zones and schemes to permit resource recovery operations
- simplify the development approval process and increase the likelihood of success
- ensure that existing facilities can expand and develop in line with government waste objectives

National Coordination

- **Are there any significant regulatory differences between the states and territories in waste management? What are the costs of these differences?**
- **How could national coordination be further improved?**
- **When is it appropriate to implement uniform national approaches and when is it appropriate for the jurisdictions to purse their own agendas?**
- **What role should the Australian government play in pursuing uniform national approaches when this Is the appropriate course of action to take?**
- **How well is the Environmental Protection and Heritage Council functioning in developing waste management policies that are in the national interest? What other models for developing policy should be considered?**

The fact that significant regulatory differences exist between states and territories poses significant complications to those companies that operate across state boundaries.

It would therefore be of great advantage for national coordination particularly in relation to:

- Policy leadership in relation to resource value
- Creating market incentives and MBI's
- Address market failures preventing resource recovery expansion particularly pricing mechanisms, regulation and purchasing policies
- Setting national waste targets
- Developing national data and monitoring protocols
- Establishing EPR schemes
- Definitions of waste and recovered resources
- Regulation of AWT output composts
- Funding and grants for major infrastructure
- Facilitating State EPA's and Ministerial agreements
- Accelerating the rate of reform