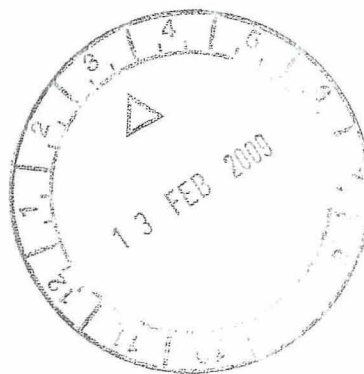




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Email: Australia@sita.com.au**Hon Sheila Mills MLC (Chair)****18-32 Parliament Place West Perth 6005****Inquiry into Municipal Waste Management in Western Australia**

I write on behalf of SITA Environmental Solutions regarding reform of Municipal Waste Management in WA.

SITA is one of Australia's leading recycling and waste management companies. In WA SITA is also a 50% joint venture partner with Hanson, in WA Landfill Services.

SITA welcomes the Inquiry and believe they will drive further reform and environmental improvement in WA.

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

However, the trend graphs attached indicate that Western Australia is unlikely to achieve the waste diversion targets set by the Government, without significant additional intervention.

In particular this will require the Government to continuously increase the waste levy until such time as the economic signals for recycling match or exceed those for landfill.

SITA believes there is a long term role for well managed and regulated landfills as a residual waste disposal option. However, the presence of underpriced and poor quality landfills (which do not price all costs and externalities into their gate fee) will continue to undermine resource recovery and recycling.

SITA supports the proposed increase in the landfill levy. However, for the reasons set out in the attached document, believes the proposed increase will be insufficient to achieve the State targets.

Please find attached our detailed response to the WARR Bill and WARR Levy Bill.

Yours sincerely



Mike Ritchie
General Manager Communications

Cc Nial Stock, General Manager, SITA Environmental Solutions, WA

Inquiry into Municipal Waste Management in Western Australia

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
- 5 Advanced Waste Treatment facilities
- 5 engineered landfills
- 5 transfer stations
- 3 resource recovery facilities
- 1 compost facility
- 18 municipal contracts throughout Australia, servicing over 800,000 households each week
- Introduced the first split mobile cart for recycling services
- Employing over 900 people including owner drivers

The current trends in waste to landfill in WA

SITA engaged Hyder Consulting to assess progress toward State Waste Targets in all major capitals of Australia.

The report on WA (with a focus on Perth) is attached for information.

The report found that while WA had an ambitious target of Zero Waste by 2020 this was highly unlikely to be achieved with the current policy settings of Government.

The “Strategic direction for waste management in Western Australia 2003” sets out the principles to achieve zero waste by 2020. The Hyder report has examined the contributions to landfill tonnages from the listed streams. Its findings are clear. The trends in waste generation and landfill will prevent the state from achieving its recycling and diversion targets.

This conclusion has been reinforced by the recent public comments by the Minister for Environment that recycling in WA is insecure and needs a significant boost.

The Hyder report disaggregated the data for the three main waste streams MSW, C+I and C+D.

For all streams it found that the trend in waste growth was swamping the improvements in recycling resulting in either static or increasing tonnages to landfill. Certainly not the significant reductions predicted by the Waste Targets.

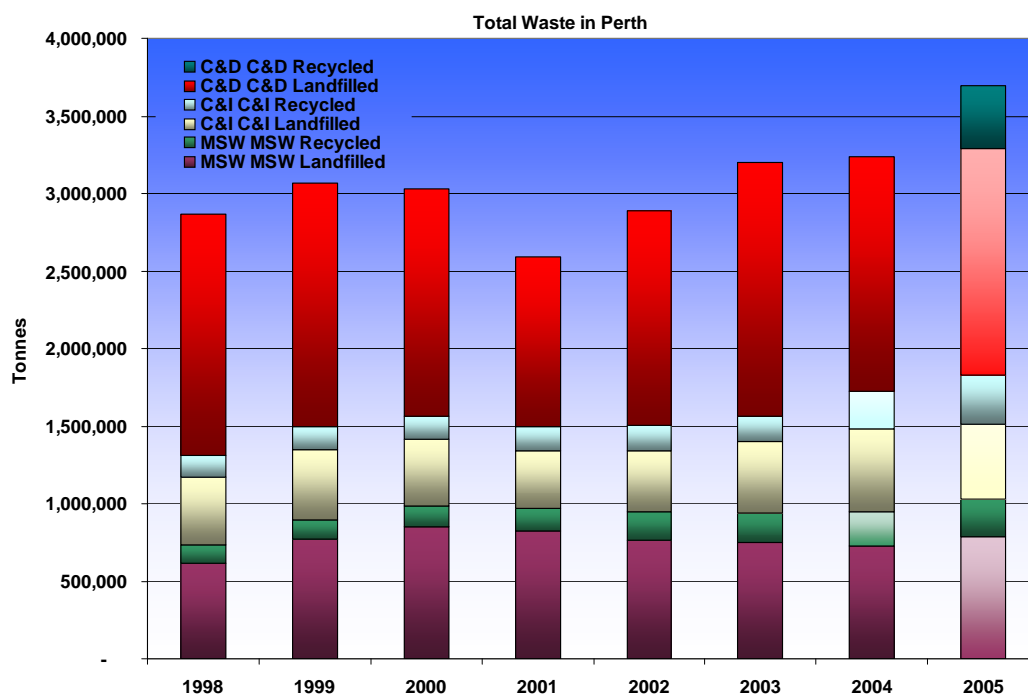
Table 1-1. Combined waste minimisation and resource recovery targets (%).

Stream	Current	2005	2010	2015	2020
Inert	N/A	60	90	100	100
Organics	N/A	50	75	85	95
Recyclables	N/A	70	90	100	100
Problematic	N/A	33	50	67	80
Hazardous	N/A	25	40	60	75

For the purposes of generating the target graphs according to the more traditional classification of waste – MSW, C+I and C+D, Hyder has assumed a composition for these waste streams as set out in the attached document.

Total waste generation in Perth and the State Targets

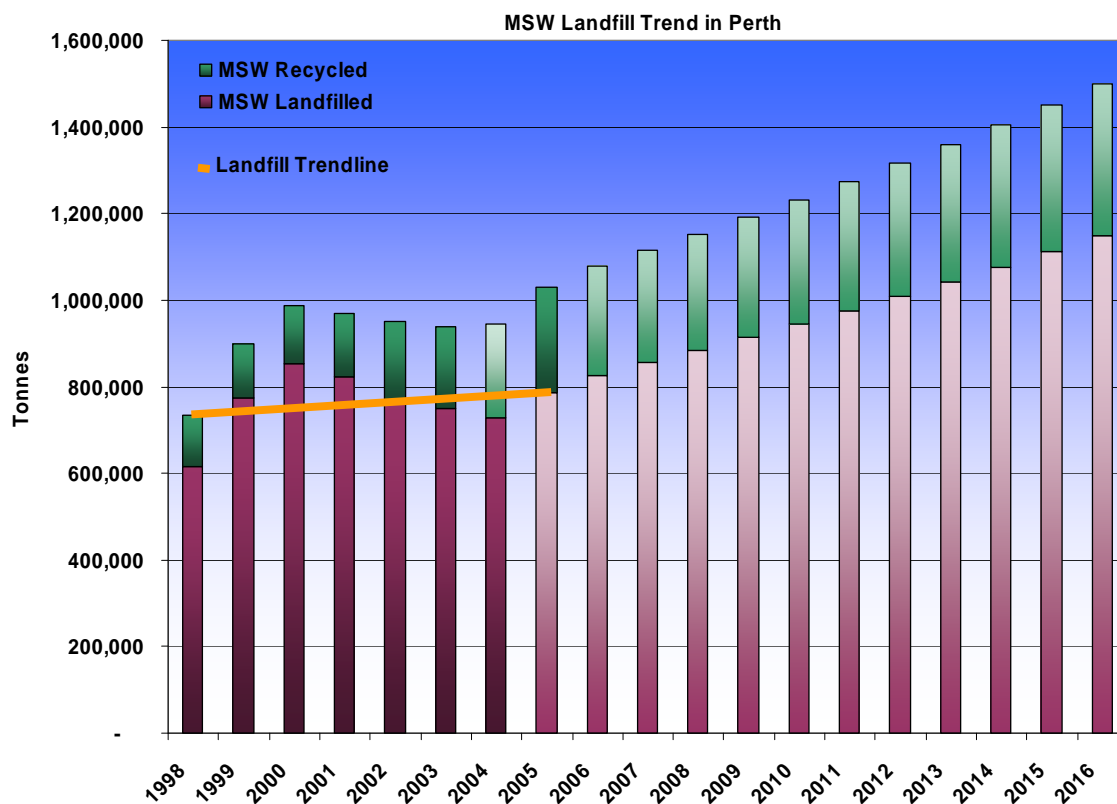
The total waste generation rate is given in the following graph. It shows relatively static growth in recycling rates and growth in C+I and C+D landfilling. These are discussed in more detail below.



MSW Waste Streams

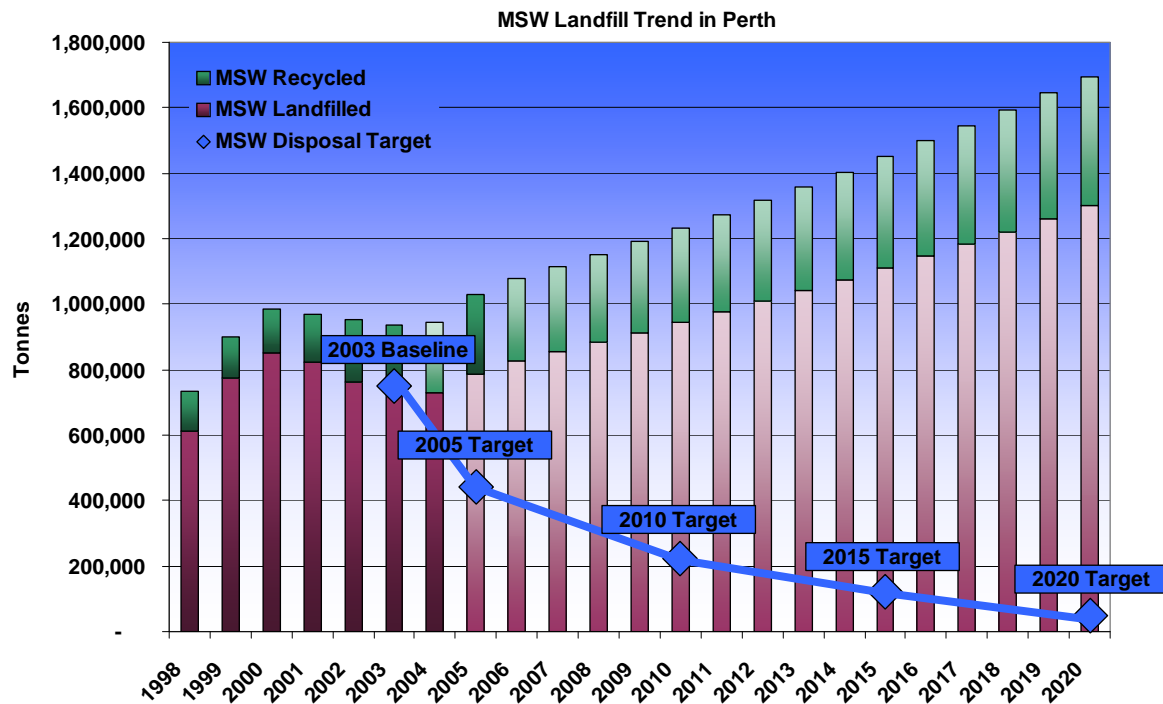
The trend lines for MSW show an increase rather than a decrease in waste to landfill over the past 7 years but a more positive recent downward trend in the last 4 years.

However, Hyder have also modeled the likely growth in waste generation based upon increasing rates of per capita consumption and population growth in Perth. These trends are shown in the following graph.



Higher population growth and per capita consumption are likely to drive up waste generation.

Recent initiatives by the Mindarie region are likely to have a positive effect on these figures but that single AWT while achieving a moderate gain, will not be nearly enough to meet the targets (following graph).



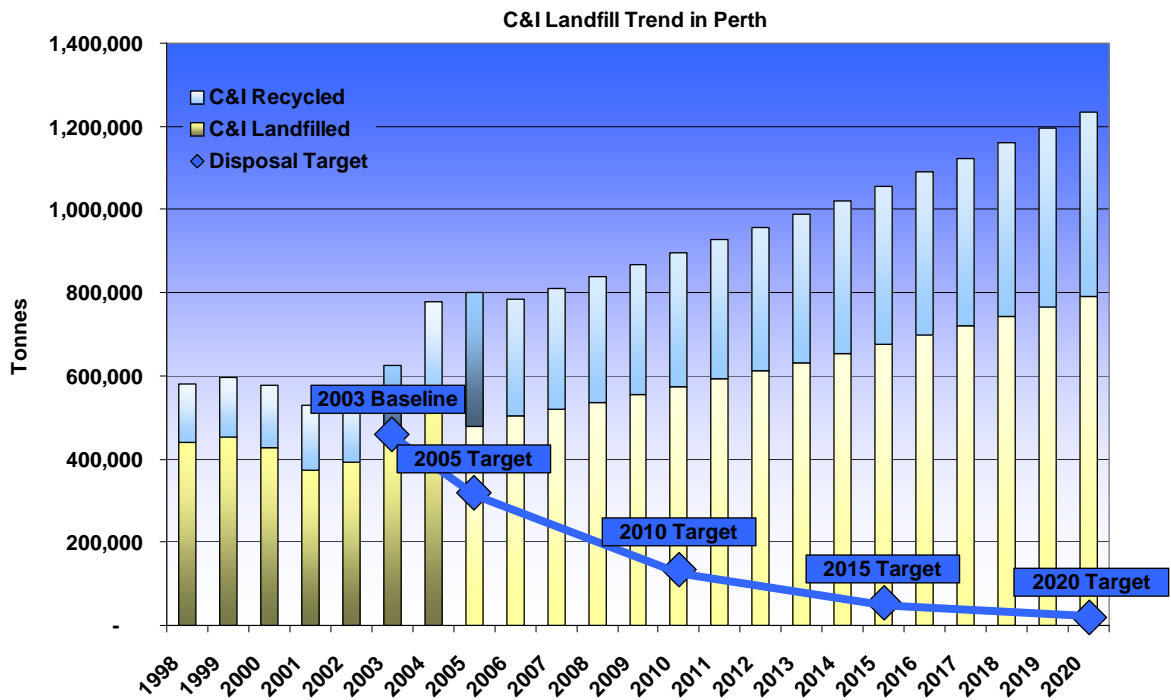
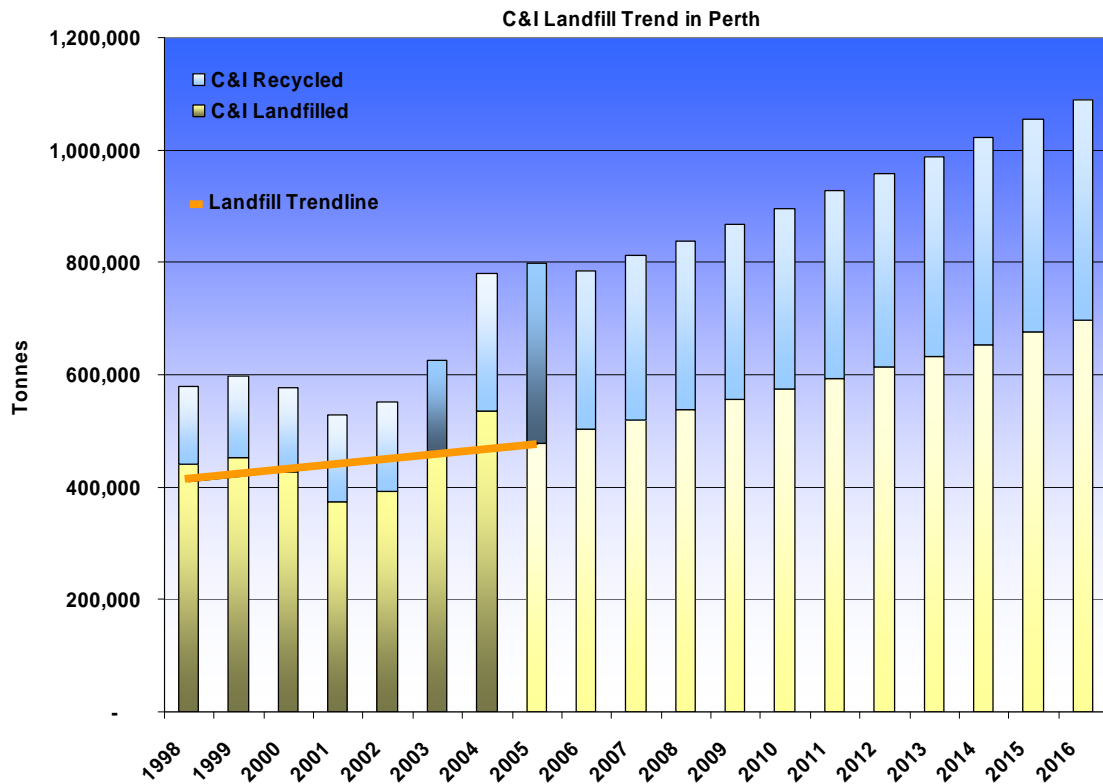
C+I Waste Stream

The C+I graphs show that rather than decreasing, total C+I waste generation and landfilling is increasing in response to economic and population growth.

In order for the C+I waste volumes to trend downwards significant new interventions in the form of dirty MRF's and source separated recycling schemes are required.

These are not possible if they are competing against cheap and underpriced landfills. Unless there are economic or regulatory drivers all but a few commercial waste generators will opt for the cheapest disposal option, which in Perth is landfill.

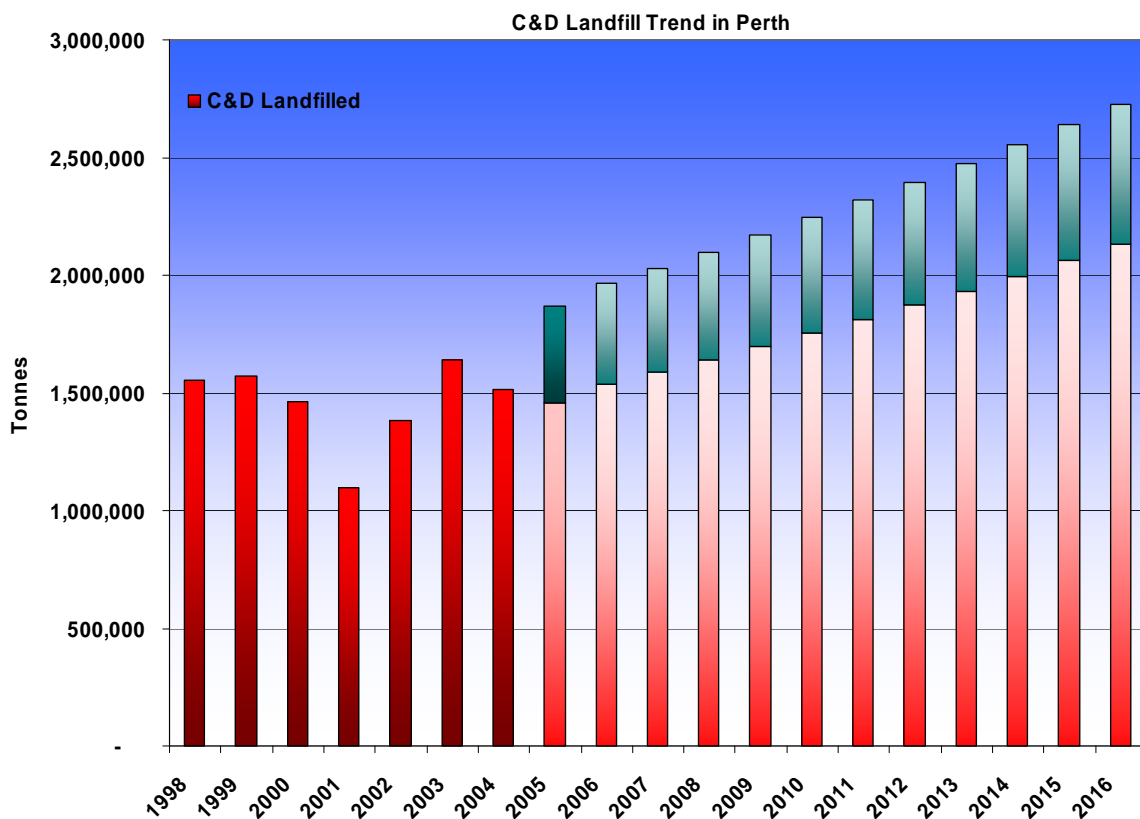
As a consequence the targets are unlikely to be achieved even with the moderate increase to the landfill levy established in the WARR Levy Bill. SITA recommends the Inquiry examine options for raising the levy to send a price signal to the waste market, whilst maximizing hypothecation rates to fund recycling infrastructure and programs.

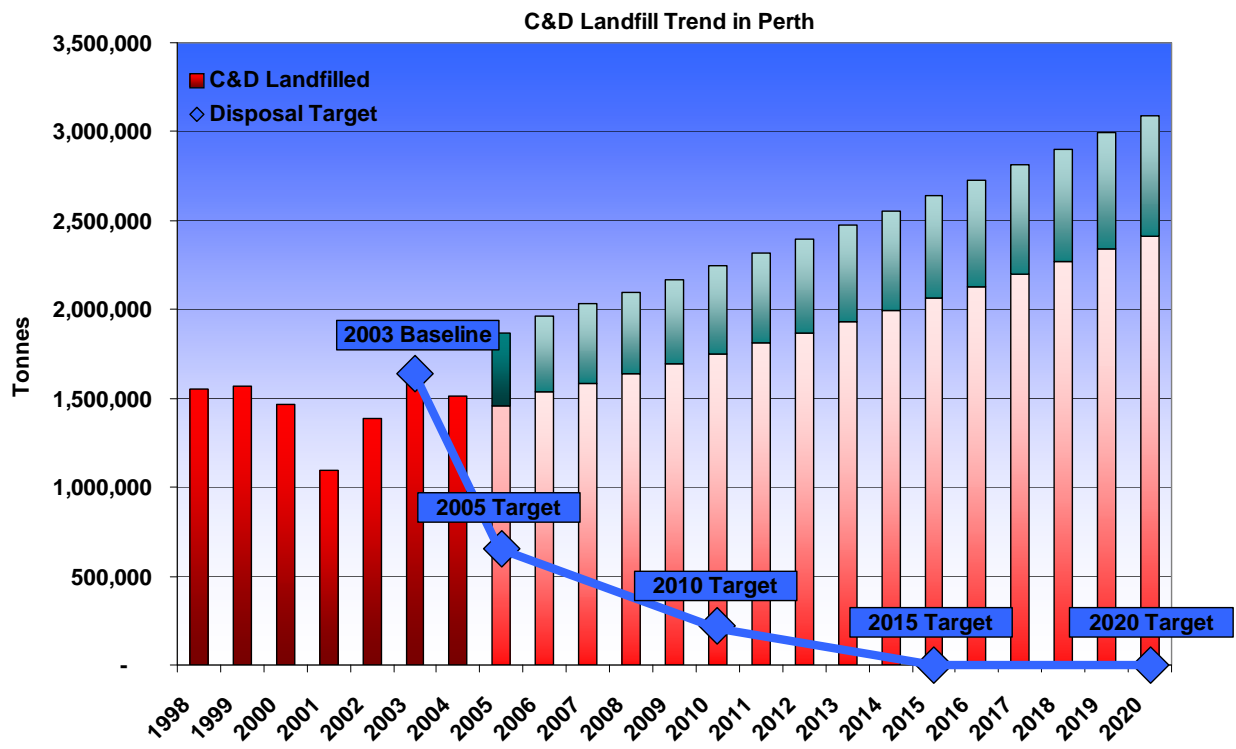


C+D Waste Stream

Being the heaviest waste stream, C+D waste is more sensitive to the dollar cost of waste disposal (landfill gate fees are charged on a per tonne basis) and therefore are the most sensitive to increases in the landfill levy. Hence the moderate increase in the levy executed in the WARR Levy Bill will have a small effect upon this waste stream.

The graphs below indicate that C+D waste generation has not been falling and is again predicted to grow with population and economic growth.

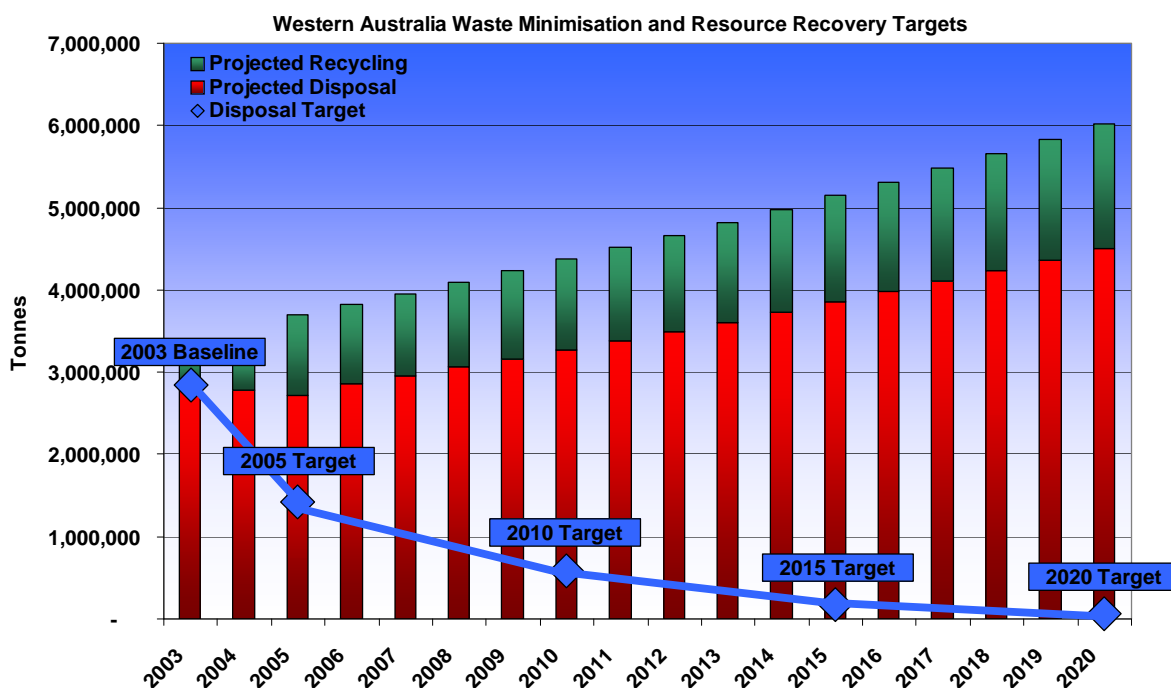




Overall trend and the Zero Waste Target

The consolidated position shows that while there is some moderate increase in recycling in Perth it is swamped by the total growth in waste generation and disposal to landfill.

Significant additional government intervention will be required to turn these trends around. In fact absence of further action by the Government could see more waste going to landfill in 2020 than in 2006.



Priorities

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.

In pursuing their 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 complimentary instruments to drive reform.

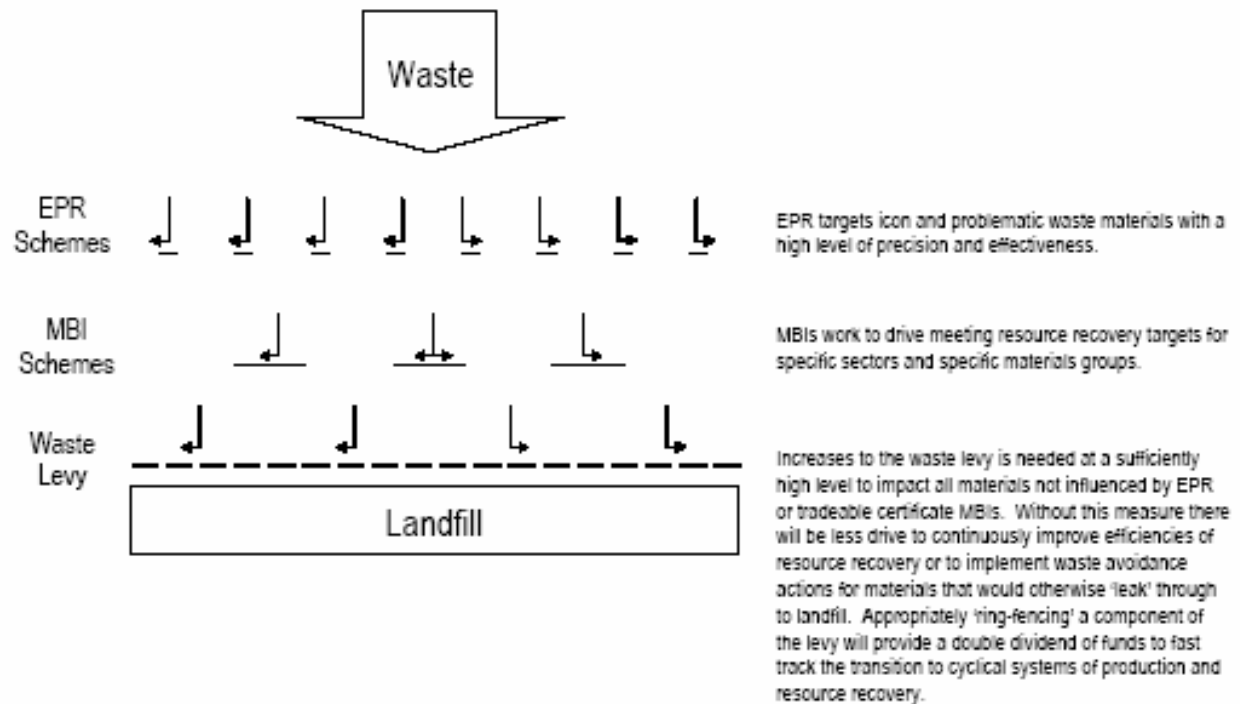


Figure 5 – The waste levy acts as the final safety net to impact all material types not influenced by EPR or MBI schemes and provides pressure to continuously improve recovery rates and efficiency

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 landfill levies have 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) and in most cases have little impact upon the recycling operator's bottom line costs
- Rewards recyclers who are able to charge higher prices for their services vis landfill
- Are "catch all" MBI's which penalise disposal to landfill
- Redirect materials back through the economy
- Are 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.

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.

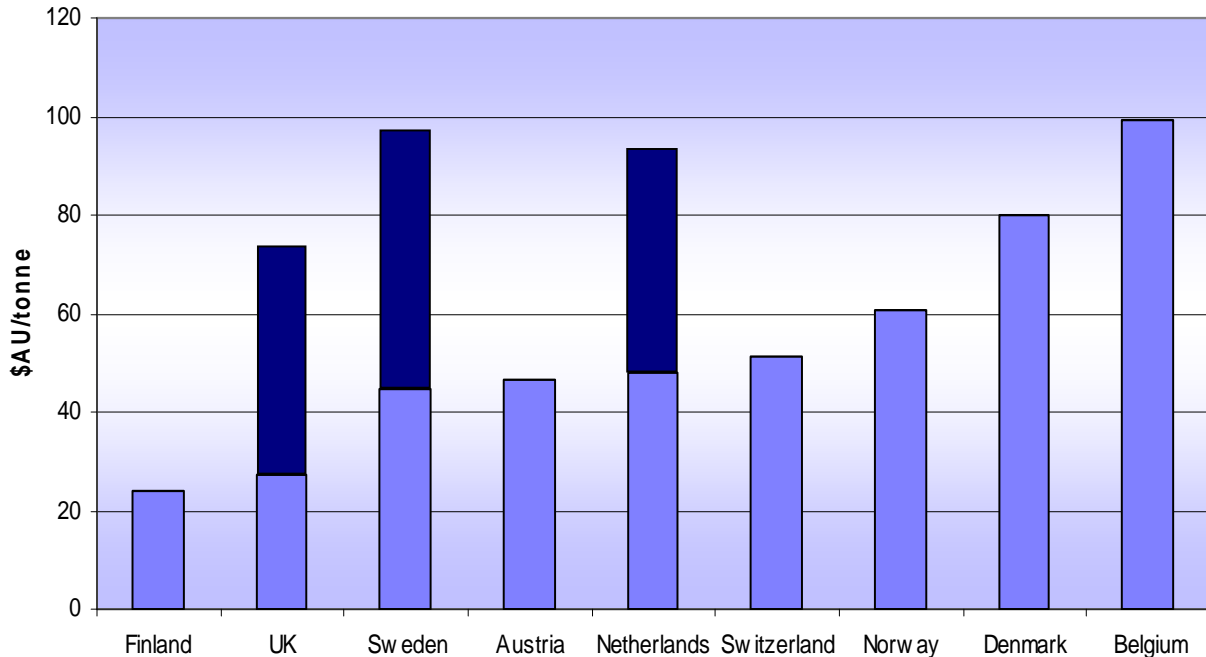
The application of landfill levies will drive AWT technology expansion – diverting waste from landfill and recovering materials for their highest net resource value.

The NSW government has recently announced an increase in the levy from \$46.70 to \$120 over 7 years. Discussions with many council officers indicate that these announced rises are already having an effect on Council decisions related to their long term waste strategies.

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.

Landfill tax in European countries (\$AU/tonne):
the escalador system



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 signals.

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) needs to be set high enough to affect behaviour (see below).

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. Those changes 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)

WA landfill levy

SITA would support a Government proposal to increase the landfill levy over time.

Given the earlier discussions our principal comment would relate to the quantum of the levy rather than the intention to increase it.

SITA believes that the WA \$7 levy is still too low for the following reasons:

- It is not high enough to generate sufficient funds to build the necessary waste diversion and recycling infrastructure
- It is not high enough to drive significant behavioural change in either the C+I or MSW sectors

SITA also believes that levies should be applied equally to all landfills within a state jurisdiction. It is difficult to make a justification for differential levies based upon geography. Rather landfill diversion and environmental risk should be the main criteria for assessing the application of a levy.

Only those landfills which have achieved their diversion targets or addressed their environmental risk provisions in other ways, should be exempted from the levy (see later discussion).

How high should the levy be?

The private sector will not invest in large scale waste infrastructure to divert waste from landfill (such as C+I sorting plants or AWT), without 3 preconditions being met:

- 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 will be forced to fill the infrastructure and funding gap with taxpayers money or risk not achieving the stated targets.

The effect of the WA government’s intervention in increasing the levy will be to:

- increase the likelihood of Councils entering long term contracts for the supply of waste to AWT's
- make the landfill gate fee reflect the true operating costs
- make source separation systems more viable
- raise revenue for other waste programs

However, SITA believes that the Government should explore much steeper increases in the levy if it realistically wishes to achieve its stated targets.

SITA believes that the funding allocation proposed by the Government to Waste Boards may not be sufficient to drive reform fast enough to meet the stated waste goals.

In particular SITA is concerned that the following areas may be underfunded in the current waste strategy and funding arrangements:

- Waste avoidance incentive scheme (\$0.1 m)
- Resource Recovery Infrastructure Support Scheme (\$0.5 m)
- Recycled content Product Purchasing Rebate Scheme (\$0.5 m)
- Resource Recovery Incentive Scheme (\$2 m)
- Transport subsidies (\$0.3 m)
- Institutional strengthening (\$0.1 m)
- Zero Waste Initiatives (\$0.5 m)

Whilst not recommending a specific \$ figure for the levy, SITA would recommend that the levy be set at a level which achieves three key objectives:

- generate sufficient market incentives for the private sector to invest in necessary infrastructure to meet the strategy targets
- drive behaviour change toward source separation in the C+I and MSW sectors
- fully internalise the environmental externalities of landfill operations in today's dollars so that future generations are not left a liability.

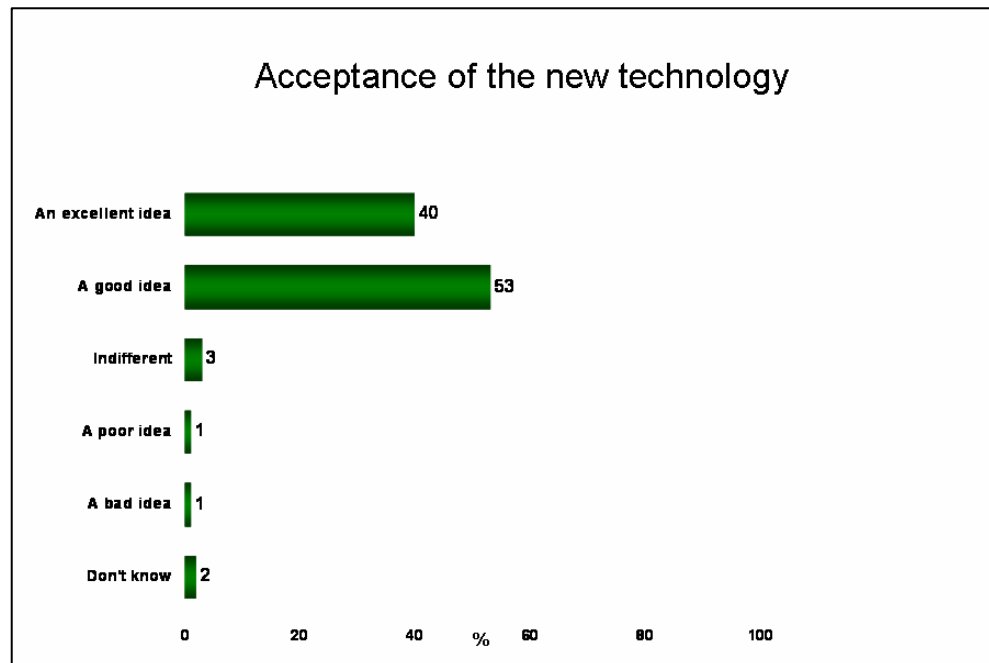
Willingness to Pay increased levies for environmental gain

SITA believes that the community is willing to pay higher landfill levies so long as they deliver improved environmental outcomes. Recent research by SITA and the AWT Working Group bears this out.

SITA and the AWT Working Group recently completed research on national Willingness to Pay landfill levies and increased disposal costs specifically for AWT technologies (research paper available upon request).

The key findings of the research, conducted nationally (700 respondents) 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





Consequently SITA believes that the community understands waste issues and the need for the full environmental costs of disposal to be imbedded in current rates.

More than **70% are willing to pay more than \$50/year** to achieve high levels of environmental performance and to divert waste from landfill.

In particular it is worth noting that there was limited comment in the media about the recent announcement of the WA levy climbing to \$58/t.

This is testimony to the community's willingness to pay for good environmental outcomes.

Where should increased levy money be spent

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:

- local government kerbside recycling subsidies for best practice
- local government subsidies for transport of recyclables from remote areas to markets

- funding support for local government environmental education programs
- funding support for local government investigation of AWT
- funding support for local government litter and waste programs
- infrastructure grants to build recycling and alternative waste systems
- funding for public place recycling infrastructure
- seed funding for new resource recovery and Alternative Waste Treatment infrastructure
- infrastructure support for recycling from office towers
- EPR related schemes
- Contaminated land remediation including orphan sites

New Infrastructure

In particular SITA expresses the view that if the Board intends for recycling infrastructure (AWT's, C+I sorting plants, dirty MRF's, MRF's, recovery facilities) to be installed then greater commercial incentives will need to be put in place to make a substantial impact upon the waste stream.

That means either increasing the landfill price so that market economics make resource recovery more viable, or providing rebates or other commercial incentives for investment. Or a combination of both.

A case in point is the SITA transfer station at Welshpool. Daily the facility receives many tonnes of recyclable paper and cardboard. SITA has an aspiration to build a resource recovery facility to extract and recycle those materials. However the return on capital is significantly less than required.

The revenue streams from such a business are:

- The landfill gate fee inclusive of the levy (which the business keeps if it diverts the material from landfill)
- The sale of recovered recyclable materials
- The higher the waste levy, the higher the imbedded revenue stream available to operate any recycling business.

Such C+I dirty MRF's are required to achieve the waste targets. 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 landfill disposal
- an increase in the cost of the landfill levy
- recycling rebates payable on tonnes recovered
- better market prices for the recovered materials or failing those
- regulations to require waste diversion

Waste Board funding will need to be allocated to the development of such infrastructure. In the absence of Board intervention in the levy or regulatory environment, it may fall to the Board to establish the necessary infrastructure.

If the pricing settings are right the private sector will build the infrastructure without a contribution from the public purse.

The pricing settings in WA and Perth, are not conducive to significant private sector investment. The levy remains the best instrument available to the Board to alter them.

In the absence of such intervention the Board will need to invest significant public funding into seed capital or ongoing operating subsidies or rebates.

SITA believes that the levy, as a tax on waste generators, is a more appropriate public policy instrument than increasing other general taxes or shifting funding to other important programs such as roads and health.

The lack of public criticism of the WA Government's recent levy increase (which will raise \$780 million over 5 years) lays this argument to rest.

Local Government Schemes

Local government is the key engine room for waste diversion and recycling. It provides base load tonnes for AWT facilities and can initiate programs for C+I resource recovery.

There are a large number of local government programs which require funding support if the waste targets are to be achieved.

These include:

- kerbside recycling subsidies for best practice recycling systems
- local government subsidies for transport of recyclables from remote areas to markets
- funding support for local government environmental education programs
- funding support for local government investigation of AWT
- funding support for local government litter and waste programs
-

Source Separated Recycling Schemes

SITA believes that considerable regulatory or pricing intervention is required to drive source separation particularly in the C+I sector. Office White paper recycling is a good example.

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

Levy funding should be allocated to this important task.

Planning

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 landfill, 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 Waste Boards and 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

Government and Waste Board funding should be allocated to developing the right planning framework to facilitate new infrastructure and source separation systems.

Regulatory 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 the State government to “call in” significant developments such as AWT facilities and approve them in spite of local opposition (though this issue may improve with recent amendments to planning regulations)
- 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 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

Government Intervention

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.

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.

To this end SITA would support strong advocacy by the WA Government to the national government on waste issues particularly in the areas of:

- Extended producer responsibility and coregulatory regimes
- Review of the economic efficiency of kerbside recycling compared to CDL
- Coordination of waste targets and policy development

Banning materials

The WA Government could intervene 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

SITA strongly supports the existing State strategy 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 the Australian and WA economies will benefit more from job creation, wealth generation, product reuse and pollution avoidance by resource reuse, than they 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.

AWT and new technology

SITA strongly supports the introduction of new technology such as AWT's to divert waste from landfill and to achieve the government's stated waste targets.

There are excellent examples of AWT's operating both here in Australia and overseas.

Industry will not invest in new technology unless three key preconditions are met:

- a long terms supply contract for waste
- a known site with appropriate planning approvals
- the right price for processing the waste

These are dealt with in turn.

Supply of waste

Municipal Councils have been reluctant to enter into long term supply contracts for AWT technology without clear guidance from the State Government.

To date the government has not made specific requirements of local Councils to divert waste from landfill, unlike the UK where the UK Waste Strategy and LATS Scheme specifically require diversion of municipal waste from landfills.

AWT providers will not build multimillion dollar capital projects on a speculative hunch that the market will move in that direction. All AWT providers will require long term contracted tonnages in order to secure capital financing.

Understandably local councils have been reluctant to enter such arrangements (and to pay the premium price for AWT) without absolute commitments from the State Government that such is the policy direction for the State.

Sites with appropriate approvals

It is difficult to achieve planning approval for waste related activities.

Furthermore those companies or State Government agencies which already own land have a significant competitive advantage when it comes to Council tender processes.

One reform recommended by the AWT Working Group to the Government (attached AWT Policy Paper) is for Councils to nominate the site prior to any AWT tender process.

This means tenderers will be competing on their technology and operating experience rather than on their landholdings.

Price

The recent amendments to the waste levy have made AWT and other processing more competitive with landfill in the SMA and ERA.

However the absence of a levy in the regional areas of NSW means that the price premium between landfill and AWT is a hurdle most Councils cannot and will not jump.

Consequently the Government should look at other mechanisms to provide incentives to Councils to move to AWT and other waste processing capacity such as rebates, targets and infrastructure grants.

Compost usage

AWT has the capacity to divert up to 70% of a Councils waste from landfill for beneficial uses.

The SITA SAWT technology for example generates:

- Compost for sale and beneficial reuse

- Recovered recyclables
- Inert rocks and stones for road base
- Materials useful for Waste to Energy plants

The NSW and WA Governments have participated in an industry Government partnership to develop guidelines for the application of composts to land. The AWTDORF project has now completed stage 1 specifying the uses of AWT composts and the appropriate applications to ensure environmental protection.

Extended Producer Responsibility

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.

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 would support a national or state study into the efficiency of Container Deposit Legislation (CDL) against kerbside recycling on a pure cost per tonne basis. The appropriate model is one which parallels the Californian system of not sorting to brand and spending unredeemed deposits on support of the recycling system.

Minimum environmental standards for landfill 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.

The NSW Government and local Councils 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.

SITA believes in a level playing field and would see all operators (including local Council operators) meeting the same minimum environmental standards for :

- Gas capture
- Leachate liners
- Post closure remediation

- Provision for long term monitoring and remediation

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 NSW 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 NSW 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.

National Coordination

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 if the NSW government took a leadership position in striving 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

Conclusions

SITA encourages the Inquiry to take a strategic approach to its review of waste management in WA.

SITA is concerned that the absence of market based signals or regulatory intervention makes the achievement of the WA waste policies and targets impossible to achieve.

While SITA recognises that increases in the levy may be politically sensitive, experience elsewhere demonstrates that the public have a high willingness to pay, so long as good environmental outcomes are achieved.

With this in mind SITA encourages the Government to explore rapid increases in the levy to drive reform and accelerate movement toward the targets.

The current trends in resource recovery and recycling are not sufficient to offset the significant increases in waste generation. As such the targets for recycling are unlikely to be met.

SITA recommends that the levy be increased further and be set at a level which achieves three key objectives:

- generate sufficient market incentives for the private sector to invest in necessary infrastructure to meet the strategy targets
-
- drive behaviour change toward source separation in the C+I and MSW sectors
-
- fully internalise the environmental externalities of landfill operations.
-

SITA is willing to explore all of these issues with the Government upon request.

SITA Environmental Solutions

Disposal and Recycling in Western Australia (Perth)

History and Projection

Explanatory Notes

Monday, 26 June 2006

Project No: NS03314

Report No: 2-2



SITA Environmental Solutions

Disposal and Recycling in Western Australia (Perth)

History and Projection

Explanatory Notes

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Report No: 2-2

Date: Monday, 26 June 2006

This report has been prepared for SITA Environmental Solutions in accordance with the terms and conditions of appointment for Disposal and Recycling in Western Australia (Perth) dated June 20, 2006. Hyder Consulting Pty Ltd (ABN 76 104 485 289) cannot accept any responsibility for any use of or reliance on the contents of this report by

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1 Data gathering and procedure

1.1 Data sources

There is little information readily available on Western Australia's waste disposal and resource recovery. Disposal figures for 1998-2004 have been collated based on personal communication with the WA EPA (2004). This data is for metropolitan Perth only. Some disposal data is also available from the Zero Waste WA webpage.

1998-2003 municipal recycling figures are also compiled from information received by WA EPA. This data is predominantly for Perth however, quantities from some regional councils is included. Therefore, the overall recycling performance should be regarded as slightly higher than actual when compared with Perth MSW disposal figures. All recycling figures for 2005 (financial year 2004/05) are sourced from the WMB 2006 report 'Review of Total Recycling Activity in Western Australia'. It is noted that these figures are significantly different from the recycling figures given for previous years, most likely due to improved reporting and increased number of reporting councils.

Commercial and Industrial (C&I) recycling figures for 2003 were estimated from the 'Consultation Regulatory Impact Statement (RIS) on the Revised National Packaging Covenant' prepared for the Environment Protection & Heritage Council (Nolan-ITU, 2005). This and the 2005 estimates have been used to determine C&I recycling quantities for the other years, based on population and GDP growth. Information on Construction and Demolition (C&D) waste recycling is only available for year 2005.

ABS (2006) and Western Australian Planning Commission (2000) data have been used for 1996, 2000, 2001, 2004, 2005, 2006, 2011, 2016 and 2021 population figures and projections. Populations for intermediate years have been interpolated.

1.2 Projections

Projections of future disposal and recycling quantities are calculated for the respective waste streams until the Year 2016. The disposal and recycling increases are based on an average annual per capita GDP growth of 1.88 percent (population adjusted) and an average annual population growth in accordance with the projections given by ABS (2006) and Western Australian Planning Commission (2000). This follows the methodology used in the 'Consultation Regulatory Impact Statement (RIS) on the Revised National Packaging Covenant' prepared by Nolan-ITU for the Environment Protection and Heritage Council in 2005. These projections assume a business as usual approach.

1.3 Towards Zero Waste

In 2000/2001, the WA State Government published 'Waste 2020 – Towards Zero Waste'. One of the objectives of this strategy is to achieve zero waste to landfill by 2020 through five interdependent goals:

- *Sustainability – to achieve waste reduction, re-use and recycling outcomes which are environmentally, socially and economically sustainable.*
- *Commitment – to achieve the commitment and participation of all stakeholders in waste reduction, re-use and recycling practices and processes.*
- *Prevention – to prevent the generation of waste.*
- *Resource Recovery – to maximise the recovery and recycling of resources from waste.*
- *Integration – to establish effective frameworks and structures to coordinate and facilitate waste reduction, re-use, recycling, the recovery of resources and the safe management of remaining waste.'*

The document 'Strategic direction for waste management in Western Australia' (WMB & Department of Environment, 2003) outlines principles to achieve zero waste by 2020. The strategy proposes combined waste minimisation and resource recovery targets as listed in Table 1-1.

Table 1-1. Combined waste minimisation and resource recovery targets (%).

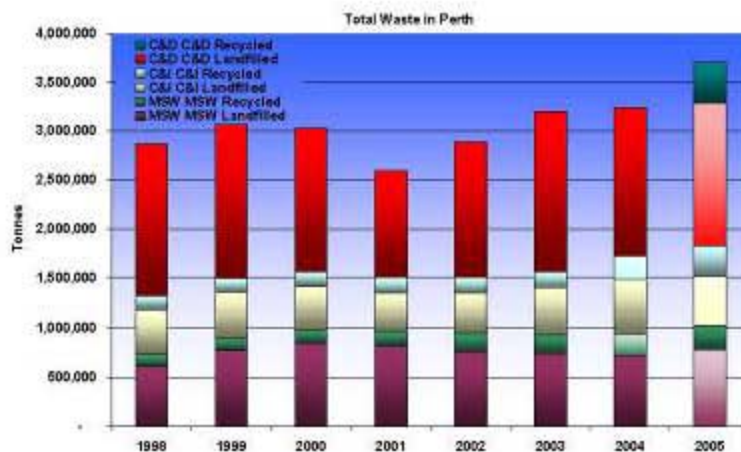
Stream	Current	2005	2010	2015	2020
Inert	N/A	60	90	100	100
Organics	N/A	50	75	85	95
Recyclables	N/A	70	90	100	100
Problematic	N/A	33	50	67	80
Hazardous	N/A	25	40	60	75

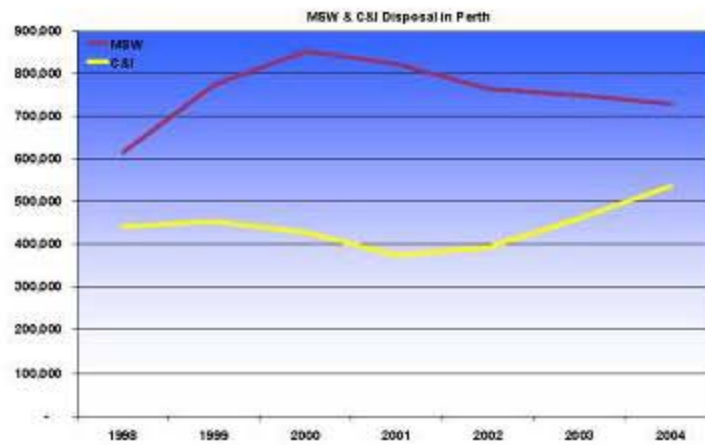
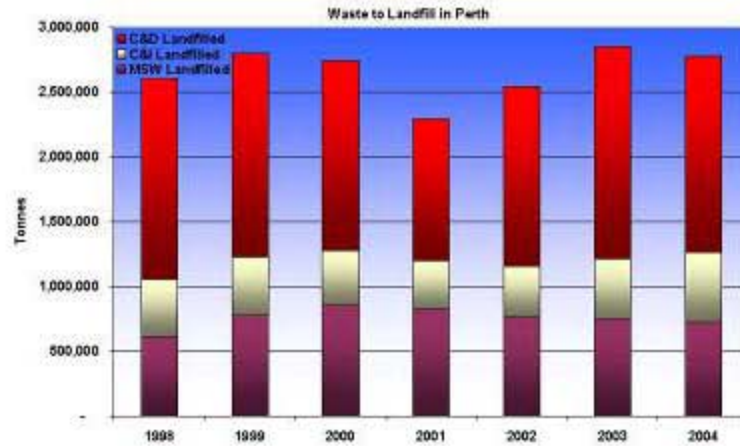
2 Results

Historical trends of waste disposal and recycling and projections for the three waste streams are presented in the following sections. Interpolated and projected data is presented in lighter colours.

2.1 Total Waste

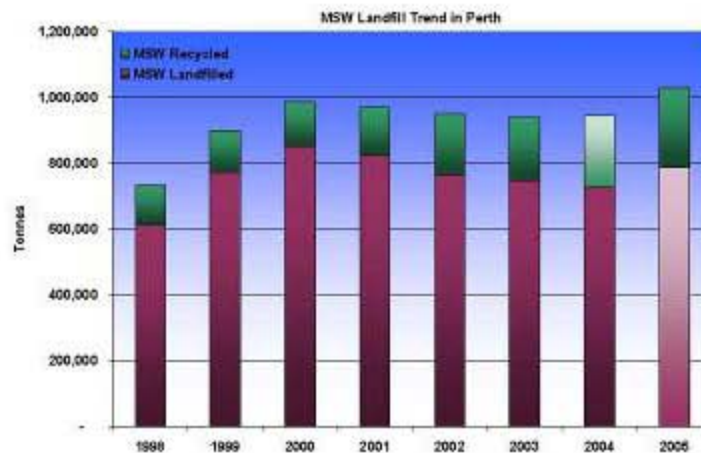
The first graph shows total waste generation, disposal and recycling in Perth from 1998 to 2004. As previously indicated, C&D recycling data is only available for 2005. The second graph only shows the quantities being landfilled over the same period. When combining MSW and C&I disposal figures, Graph 3, a fairly constant disposal pattern emerges. One possible interpretation of the slight decrease in MSW disposal and concurrent increase in C&I disposal could be an improved delineation and, hence, improved reporting, on waste collection and disposal whereby some trade waste from smaller companies which was previously categorised as MSW is now being recorded as C&I waste.





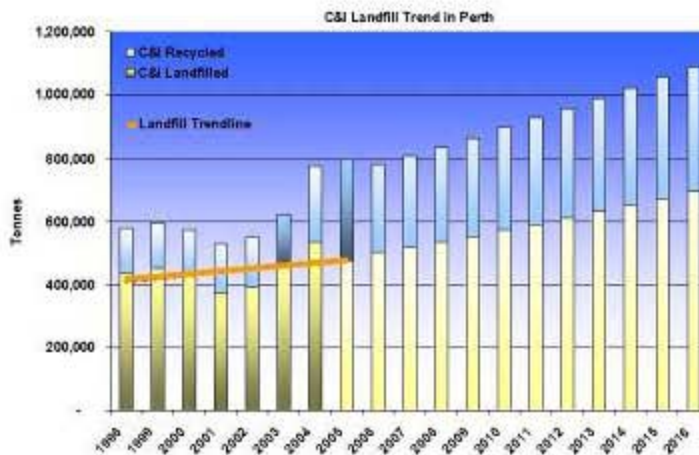
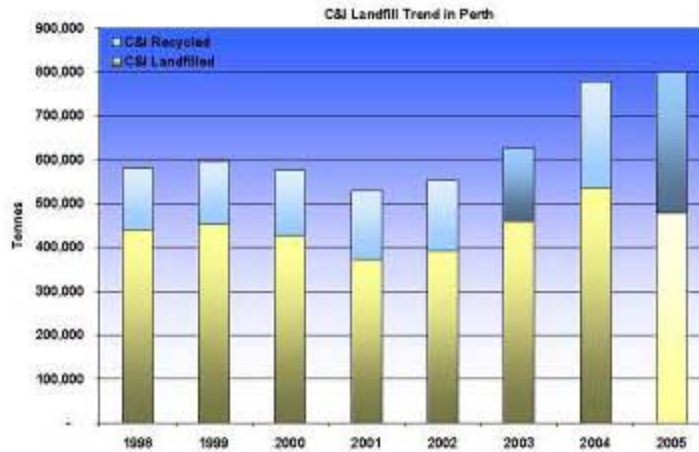
2.2 MSW

Graph 4 (below) shows the trend in MSW disposal and recycling in Perth/Western Australia. Trendlines have been added and extrapolated to give an estimate of landfill and recycling figures. Based on the trendlines from these quantities, projections to 2016 are calculated using population and GDP growth, Graph 5.



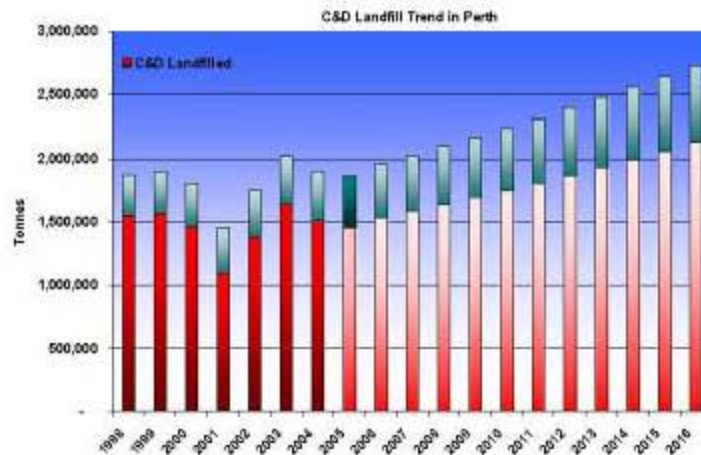
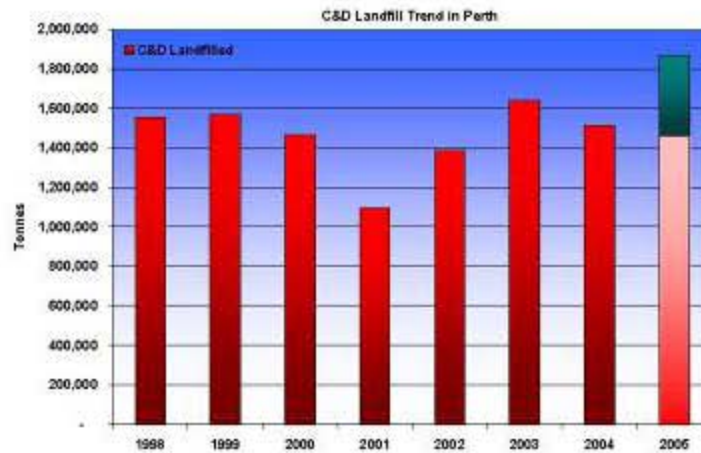
2.3 C&I

The following graphs present C&I disposal and recycling quantities. Again extrapolations have been estimated from the historical trendlines. As can be seen, C&I quantities can also be expected to increase over the coming ten years as population and GDP continue to grow.



2.4 C&D

The last two graphs show historical C&D disposal trends and projected quantities. Here, disposal projections are based on the average between 1998 to 2004 (no trend line). Projected landfill and recycling quantities are estimated as per the previous graphs.



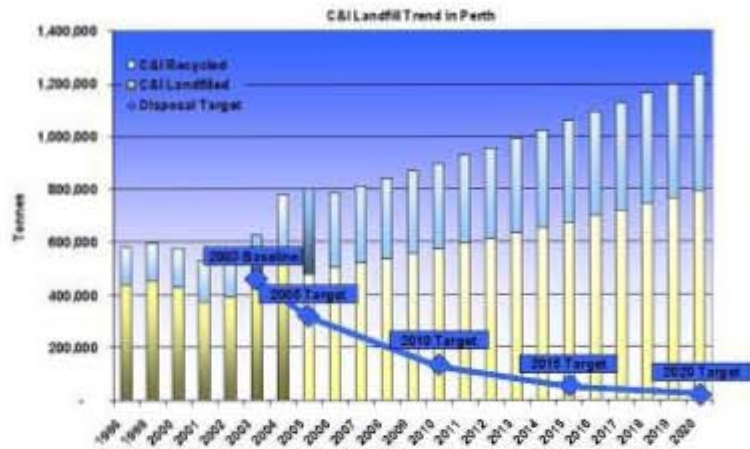
2.5 Waste Minimisation and Resource Recovery Targets

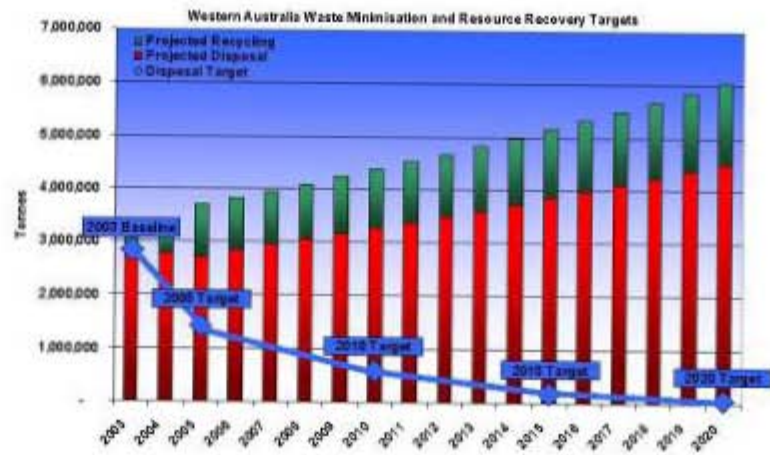
Western Australian Waste Minimisation and Resource Recovery Targets (see Section 1.3) are not directly related to the waste quantities per stream (i.e. MSW, C&I, C&D) as shown in previous sections. The accumulated targets (including the categories 'inerts', 'organics' and 'recyclables') are depicted in the graphs below, against projected landfill and recycling quantities. The assumed waste composition adopted for target calculations is presented in Table 2-1. It is noted that the graphs developed for the three individual waste streams only are preliminary estimates and are not based on specific compositional data.

Table 2-1. Waste composition adopted for target calculations.

Waste Stream	Recyclables	Inert	Organics
MSW	25%	20%	55%
C&I	33%	33%	33%
C&D	50%	50%	-







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