



Alliance for a Clean Environment

Promoting Community Right to Know and Environmental Health and Justice in WA

**Submission to the
Department of Environment, Water, Heritage, and the
Arts**

A National Waste Policy: Managing Waste to 2020

**Promoting Community Right to Know and
Environmental Justice in WA.**

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Preamble

The Alliance for a Clean Environment Inc (ACE), Western Australia's peak environmental health, environmental justice and toxics organisation, is pleased to provide this submission to the Department of Environment, Water, Heritage and the Arts on its National Waste Policy. ACE and its members have had a long history in promoting and campaigning for more appropriate and sustainably responsible methods of waste management.

It is the strong belief of ACE that there needs to be a **Sustainable Waste Management Framework** developed that will encapsulate the principles and outcomes of truly sustainable national resource recovery programs. This framework can serve as a model or ultimate goal of any jurisdiction to aim for the most ecologically sustainable outcome, and also serve as a suitable roadmap so that they can progress along the path of determining where their efforts are best placed as they endeavor to provide sustainable waste management practices for their stakeholders. Some jurisdictions should be compelled to fully comply with the **Sustainable Waste Management Framework**, whereas with some jurisdictions, full compliance may be optional, but they should be strongly encouraged to seek compliance with key elements of the framework. There are many instances abroad that demonstrate working sustainable waste management frameworks and systems.

The development and implementation of this proposed **Sustainable Waste Management Framework** should be driven by a dedicated stakeholder group, which should comprise of representatives from Government, industry, environmental and community organisations. It should have a clear set of goals, significant resourcing, and realistic timeframes so that its performance can be measured. ACE would be pleased to provide representatives to a process that would establish a suitable **Sustainable Waste Management Framework**.

ACE believes that any future framework should include a number of principles on which it should be based. These principles should include, but not be limited to the following:

Four Laws of Ecology¹

- 1.) **Everything is Connected to Everything Else.**
There is one ecosphere for all living organisms, what affects one, affects all.
- 2.) **Everything Must Go Somewhere.**
Natural systems do not generate "wastes", as one organisms waste becomes another organisms food.
- 3.) **Nature Knows Best.**
That any major man-made change in a natural system is likely to be detrimental to that system.
- 4.) **There Is No Such Thing as a Free Lunch.**
Borrowed from economics, this law warns that every gain is won at some cost, a cost that cannot be avoided, only delayed. Society needs to bear the real cost of our activities, rather than defer or externalise these costs to future generations.

¹ Commoner (1971), "The Closing Circle" Knopf 1971.

Precautionary Principle:

“The precautionary principle is a moral and political principle which states that if an action or policy **might** cause severe or irreversible harm to the public or to the environment, in the absence of a scientific consensus that harm would not ensue, the burden of proof falls on those who would advocate taking the action.”

Assessment of Externalities:

ACE believes that all processes need to internalise the cost of externalities, in other words, the cost of a good or service must include the cost of carbon, embedded energy, environmental degradation, waste disposal, and loss of amenity.

Environmental Justice:

Environmental Justice:

A condition of environmental justice exists when environmental risks and hazards and investments and benefits are equally distributed with a lack of discrimination, whether direct or indirect, at any jurisdictional level; and when access to environmental investments, benefits, and natural resources are equally distributed; and when access to information, participation in decision making, and access to justice in environment-related matters are enjoyed by all.

Environmental Injustice:

An environmental injustice exists when members of disadvantaged, ethnic, minority or other groups suffer disproportionately at the local, regional (sub-national), or national levels from environmental risks or hazards, and/or suffer disproportionately from violations of fundamental human rights as a result of environmental factors, and/or denied access to environmental investments, benefits, and/or natural resources, and/or are denied access to information; and/or participation in decision making; and/or access to justice in environment-related matters.²

Public Participation and Community Right to Know:

At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided.³

² Central and Eastern European Workshop on Environmental Justice (Budapest, December 2003)

³ Rio Declaration - Rio Declaration on Environment and Development - United Nations Environment Programme (UNEP)

Community Consultation:

ACE is disappointed that the current consultative process has been poorly advertised and promoted. Members of our organisation were “accidentally” informed via third parties, despite members being on the DEWHA “Waste Management” mailing list.

The very short public comment period is restrictive and not conducive for good public or stakeholder comment from either community groups or other organisations where submissions require formulation, circulation, modification, and authorisation.

ACE recommends that DEWHA establish a “reference or stakeholder group” that it can seek guidance from in these instances to ensure that the process and protocols of a meaningful engagement with all stakeholders is achieved. ACE also believes that DEWHA establishes a Community Engagement Charter (similar to the NICNAS charter) that will allow for equitable access and comment from the most important participants in the process; your stakeholders.

ACE recommends that DEWHA seek guidance from the Australian Environment Network (AEN) as to appropriate representatives from the environment movement to participate in any such groups that may be established

ACE is somewhat concerned over some of the questions that were asked in the consultation paper. In some instances, they seemed distinctly rhetoric and perhaps superfluous. This impression, along with the short comment period, the “Town Hall Meetings” which were at a very inconvenient time for people who did not work in the CBD or could write the time off as a “business related” does little to demonstrate that this consultation was anything more than a tick box exercise. ACE sincerely hopes that the intention of DEWHA is to conduct a meaningful consultation to illicit a meaningful contribution, and will await feedback on what the forward process will consist of, and how ACE can contribute.

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Answers to Consultation Paper Questions:

Question 1.

Are there opportunities to further coordinate, harmonise or streamline approaches to waste management across jurisdictions?

ACE believes that there are significant opportunities for better coordination across different jurisdictions with regards to Waste Management. Many instances occur where local governments, regional local governments and state and federal governments have similar programs and processes for waste treatment, which in some instances could be consolidated to obtain better outcomes. This duplication of processes and policy development often creates fragmented and uncoordinated outcomes that waste financial resources and create parallel systems that can be in conflict with one another undermining positive environmental outcomes.

There is a distinct lack of coordinated leadership in the Waste Management sector. It is an unfortunate outcome where the majority of the leadership is demonstrated by regional or local governments, community organisations, large and small businesses, and individuals. The outcomes are not always positive. As a result of poor planning, regulation, and operation, Western Australians have been subjected to some very unfortunate outcomes, with hazardous waste fires, groundwater pollution, human health exposures to waste contaminates, in air water and soil, loss of amenity for surrounding communities and historical, ongoing adverse environmental impacts.

This circumstance does not seem to be limited to Western Australia, as ACE understands from its colleagues in other jurisdictions, that similar deficiencies are demonstrated elsewhere.

ACE is also aware that in a number of instances where there has been significant leadership, very positive outcomes in the waste management arena have been obtained. This leadership has often been at great personal cost to the community, and it has been the lack of collaboration of the local, state and federal governments that has effectively stifled good community based solutions to waste management problems.

A Taskforce is required to coordinate the Federal and State (including local government) approaches to waste management and resource recovery and for it to be successful its membership must include environment and community representation. A key failure of State and Federal interaction on waste is the apparent inability to translate and implement Federal policy requirements, derived from International Treaty obligations, to state and local government management of waste.

A useful example is the failure of regulation of polychlorinated dioxins and furans in waste (and industrial emissions) in Western Australia despite the Federal Government's ratification of the Stockholm Convention. Despite obligations to minimise or eliminate dioxins, state authorities continue to issue licences to hazardous waste incinerators without adequate dioxin monitoring requirements. Dioxin in incinerator ash is not assessed and is dumped in the environment without adequate safeguards. Similar problems continue to arise at contaminated sites which have little guidance under the Contaminated Sites NEPM as to clean-up levels for dioxins and furans. It also appears that the NPI system is not capturing such basic data as atmospheric dioxin emissions from incinerators and the transfer of dioxin contaminated ash.

What is required is a taskforce that can discuss the importance of meeting such obligations and implement coordinated State/Federal policy and regulation to ensure that what is signed at a Convention in Stockholm is implemented in a regional locality in Western Australia or Victoria. At the moment this is just not happening.

Hazardous waste definitions must be harmonised across Australia to prevent the improper use of hazardous wastes as soil amendments and fuels or illegal dumping. While it may not always be the case that Australia should adopt definitions or policies from other jurisdictions due to local variability of practices and conditions ACE believes that it would be prudent that the EC Hazardous Waste Directive 91/689/EC be adopted by state and Federal authorities in a harmonised manner. In turn this would require amendments to policies, regulations, Acts and schedules. ACE has previously received expert advice that the EC Directive is an easy system to use and its outcomes are unambiguous and in some instances, compatible with portions of waste definitions that are currently used in Australia.

A major problem associated with the lack of a standardised definition of hazardous waste is the subsequent inability to track hazardous waste or make meaningful decisions about its management. Without a definition it is almost impossible to evaluate its generation, sources, management or fate. Without this basic information it is almost impossible to generate market-based solutions that require data on volumes and locality to make investment in better hazardous waste treatment and recycling facilities. A nationally harmonised definition of waste would ensure better management outcomes and give a clear picture of the size and scope of the hazardous waste problem in Australia and allow more confidence and certainty in proposals to treat and recycle such waste. It would also allow for targeting of processes that generate hazardous waste and allow for focussed research into process or material substitution that generates less toxic or non-toxic wastes.

Question 2.

Are the categorisations, definitions and standards used to manage waste between and within the different levels of government effective and appropriate?

No.

ACE believes that there is insufficient categorisation, definition, and standards applied to almost all wastes, waste processing, and waste products across the waste management spectrum.

ACE believes that there should be a clear and consistent definition of all wastes, in particular hazardous wastes and municipal waste “composts”, across all jurisdictions to provide clarity for generators, processors, and consumers. In Western Australia there is not a clear definition of “hazardous waste”. There are definitions for “controlled wastes” and “scheduled wastes” which do little to quantify the nature of the waste or its particular hazard. There are instances where a “controlled waste” is not actually hazardous, but instances where hazardous wastes may not be sufficiently defined by the “controlled waste” regulations to ensure it is managed in a manner that does no environmental harm.

ACE is concerned about the classification of waste treatment “by-products” and in particular the “composts” derived from municipal waste treatment. There are concerns over the Australian Standard that covers the use of composts or soil conditioners and the fact that it does not cover all chemicals of concern or the toxicity of the final product in

regard to crop health or human health. ACE would advocate the establishment of a stakeholder group that will assess and provide advice on suitable standards to be enshrined in legislation or regulation and that will be comparable with other international jurisdictions and include the new range of chemicals of concern.

Community “right-to-know” should be a key driver for the classification of compost grades and should range from highest grade “Organic Composts (Suitable for use on Certified Organic Produce)” down to low grade “Contaminated Composts (Unsuitable for Land Application)”. The unsuitable composts need to be assessed and an ultimate destination determined that does not compromise environmental objectives. This would require a suitable management plan to be developed, with suitable contingencies, to manage these contaminated composts. In other jurisdictions such as Nova Scotia, contaminated residual composts are the only materials landfilled as the organic reactivity of the material has already been exhausted and the potential for the landfill to generate odour, contaminated leachate or methane is very low. These effectively become ‘inert’ landfills. All other MSW waste streams have a high reuse and recycling rate in Nova Scotia leaving only the residual composts for burial.

ACE is of the firm opinion that there needs to be clear, adequate and consistent definitions over all sections of the waste management industry and across all jurisdictions. This needs to set a level playing field for all players. We do not want to have a system that would allow, for instance, the avoidance of a landfill levy by processing MSW and stockpiling of a “compost” that is unusable.

Similarly, instances of hazardous liquid wastes such as landfill leachate being blended into ‘composts’ in Western Australia to avoid the costs of appropriate liquid waste treatment and neutralisation are becoming commonplace. The current compost standards were not designed to address the new and emerging range of toxic materials such as polybrominated diphenylethers from electronic waste leachate, endocrine disrupting chemicals or nanomaterials. Despite these risks, adulterated composts are being sold in bags through supermarkets and handled by adults and children in the gardens of Australia. Most of these products would meet the Australian Standards which are silent on the new generation of toxic materials emerging from industrial sources

These are major issues in Western Australia where Regional Councils are preparing to invest hundreds of millions of dollars in technology to create such composts while diverting waste from landfill. Once complete the implementation of these technologies will establish the waste management trajectory of WA for decades to come as the high cost of establishment will ensure little competition over coming decades.

The Federal Government needs to provide leadership in terms of Waste Management Standards as ACE often finds that that states and local jurisdictions often refer to National Standards (either when they exist or not) or Federal Regulators, especially over contentious waste issues that quickly become political issues. This generally results in a less than environmentally responsible outcome. As waste is inextricably linked to our lifestyles, consumer products, industry, manufacturing, and that many chemical residues pose significant long term health and environmental impacts, there needs to be suitable mechanisms that link the Standards and Waste Databases to upstream use and original assessment processes. (ie NICNAS Industrial Chemicals Assessments and other bodies such as the APVMA, TGA and ACCC.) Ultimately, the full environmental fate of any chemical or product needs to be considered with downstream use and waste residue data

informing the original assessment process so as to identify emerging problems for both health and the environment. To this end, unifying a national sustainable waste management framework or standard would greatly contribute to identifying emerging problems and informing environmental and health assessment processes at a National level and for the benefit of States and local jurisdictions.

Question 3.

Do the current waste management frameworks across jurisdictions:

- *deliver an effective regulatory framework?*
- *provide an appropriate suite of approaches to address waste and resource recovery issues?*
- *work effectively in conjunction with planning and other environmental legislation?*
- *provide the right incentives to manage materials, products and waste sustainably and holistically?*
- *need improving, and if so, how could this be done?*

The current waste management frameworks do not appear to be providing the intended outcomes. There are many instances in Western Australia that demonstrate a serious failure of regulation, poor approaches to waste disposal and resource recovery, ineffective planning and environment regulation, and an absence of incentives for sustainable waste management and resource recovery.

ACE does not believe that it would be the only organisation in Western Australia that would welcome a formalised national framework, as any framework would be better than what currently exists in WA. Western Australia has been subjected to at least four Hazardous Waste Fires (Waste Control Fire, Oil Energy Incinerator Fire, Toxfree Kwinana Fires) in the last eight years, a number of contentious issues surrounding the operation of waste management facilities, and in most situations, these were a direct result of poor regulation and poor planning. Sadly, the regulatory framework has changed little to address the causal issues in these incidents, in fact in the hazardous waste arena, the process has actually gone backwards.

ACE does not believe that there are sufficient or properly targeted incentives, programs, or regulations to deliver sustainable or holistic waste management. There has been much discussion over Container Deposit Levies (CDL), Extended Producer Responsibility (EPR), Product Stewardship, Landfill Levies, and Recycling Targets. There has been little in terms of real action with respect to most of these schemes to produce the intended outcomes. There have been many workshops and fine words but beyond the orange juice and nibbles in CBD function rooms no concrete initiatives have emerged. Landfill rates are increasing, and CDL and EPR are being stifled by vested interests, and recyclable materials are still being dumped at landfills.

In general, any program requires at least three components: Leadership, Resources, and Research. Leadership determines the goals, provides the direction, the driving force to enact the changes, and the supervision to ensure the goals are achieved. Resourcing provides the means to enact the change and achieve the goals. Research defines the problem, determines suitable solutions, and measures the effectiveness of the programs in fulfilling its goals. There are very few jurisdictions that demonstrate these components. Most demonstrate none, and hence we have the current waste management practice of

dumping waste in a leaking hole in the ground that produces vast amounts of greenhouse damaging landfill gas and groundwater polluting leachates.

ACE would be delighted to provide comment on how to improve waste management frameworks, but due to the time constraints of a very short comment period, cannot devote the resources to provide meaningful comment in this submission.

Question 4.

In the 1992 National Strategy for Ecologically Sustainable Development, COAG endorsed the strategies and objectives for a national approach to waste management (Appendix A). Looking ahead to the next decade, how could these strategies and objectives be updated to provide the basis for a national waste policy that responds to current and future challenges and opportunities?

Perhaps a start would be in order. Of the requirements of Objective 19.1, it would appear that the National Pollution Inventory is the only objective that was fulfilled. In many jurisdictions, none of these objectives are being actively pursued. Considering the 17 year lead time, this is absolutely disgraceful. The majority of wastes in WA are still being landfilled. Objective 19.2 has similarly been disregarded. The hazardous waste management framework in WA has collapsed, and despite Parliamentary Inquiries and an expensive and largely successful stakeholder program to establish new and better hazardous waste treatment facilities, the status quo is maintained. The major factor preventing the implementation of the hazardous waste reforms was a lack of political leadership and influence of lobbyists working for the entrenched vested interests of hazardous waste in WA. We also have a situation where the Federal Government is proposing to be the only OECD country to export a hazardous waste (Orica's HCB) to another OECD country, hardly a shining light of being responsible for the wastes that we have generated.

Question 5.

What waste issues would most benefit from a national approach? What strategies could be considered and how could the need for local solutions be integrated with a national approach?

A national approach to the management of municipal solid waste (MSW), construction and demolition (C&D), and hazardous waste (HW) would be of most benefit. Strategies that can be considered should be the banning of unprocessed MSW and C&D wastes from landfill, regulated deconstruction of buildings and reuse of materials, and the mandating of suitable treatments for hazardous wastes.

C&D waste accounts for a large percentage of WA landfill intake. A key driver for this is the change in operations of the demolition and salvage industry. Rising insurance premiums mean that it is no longer commercially viable for traditional deconstruction of residential buildings to take place. For example, a recent insurance costs for a team of three workers to deconstruct a hardwood roof frame was around \$3500 for two days. The value of the timber is around \$1500. The operation is clearly unviable. As a result of such costs it is now commonplace for wrecking machines to destroy entire buildings and dump them at the tip. It requires smaller teams and much less time and insurance but higher landfill costs than traditional deconstruction.

The loss of valuable hardwood timbers and other desirable salvage material is enormous and landfill space is consumed at an ever accelerating rate. Increased landfill dumping costs may serve to reverse this trend as would a ban of timber dumping at landfill. Hardwood in landfill takes a long time to degrade releasing carbon over long periods of time and contributing to a creeping long-term source of GHG.

Question 6.

Are there waste management initiatives in operation overseas that could apply in the Australian context? If so, which ones and why?

There are many initiatives that are in operation overseas to manage wastes and could apply in an Australian context. It is somewhat concerning to ACE that the DEWHA is not aware of all of the initiatives that exist overseas in the waste management sector. DEWHA has many more resources than individuals, NGO's, and local and regional governments, to research these initiatives and to display of this lack of knowledge is deeply concerning.

Question 7.

Australia needs to safely manage hazardous waste and waste containing hazardous materials over the long term.

- *Are there any changes to current arrangements that would improve Australia's capability to safely manage hazardous waste, for example in regard to adequate infrastructure or disclosing the contents of goods and substances?*

Once again, a start would be an appropriate action to take to improve the situation. In the Western Australian context, the process of establishing new and better hazardous waste treatment facilities has effectively stalled within government. Federally, the absurdity of Australia exporting a hazardous waste to another country for treatment and/or destruction is a sad indictment of the current framework for the safe management of hazardous waste.

The safe management of hazardous wastes needs to be taken seriously by Federal and State governments. The process needs to include a definitive definition of hazardous waste, in line with the EU Definitions, and a stakeholder program that will establish siting and technical criteria for locating and operating hazardous waste treatment facilities. There needs to be a clear forward pathway developed and implemented. This should include an assessment of which market based instruments are needed to be enacted to encourage hazardous wastes to be treated in facilities that are of the highest standard.

ACE is of the view that sufficient capacity (ie: technological excellence, engineering proficiency and experience) already exist within Australia to successfully treat and manage domestically generated hazardous waste. Even the intractability of some scheduled wastes in difficult matrices has been overcome in recent years with combinations of technology such as base catalyst dechlorination (BCD) with indirect thermal desorption (ITD). More recently technological breakthroughs have occurred with Super Critical Water Oxidisation and Gas Phase Chemical Reduction for highly toxic, high concentration persistent wastes such as PCB and HCB.

Australia has the technological 'know how' and experience to develop the infrastructure to process these wastes domestically. In the case of HCB waste the technology and the personnel are available but Federal regulators have not pushed hard enough for a domestic solution. In a one-off treatment campaign for a waste stockpile such as the HCB

waste, the establishment of specialised high-tech treatment plant must have a treatment contracts in place before the investment in the plant can take place. In this case the generator has been unwilling to support domestic solutions that are acceptable to the community and plan to burn the HCB waste in Danish incinerators after high-risk transport across the world.

There are many instances where market failure creates problems in the hazardous waste sector. The Prime Minister's recent assertions about the fallibility of the neo-liberal market doctrine and the need for strong government leadership in its place are as evident in the management of hazardous waste as they are in the management of the 'toxic assets' of the financial sector. There is a clear need for the Federal government to take responsibility for the hazardous waste sector in Australia and intervene to produce better environmental outcomes. Three decades of laissez faire and market solutions have failed and the Federal Government needs to provide strong direct leadership on issues such as a domestic solution to the HCB waste stockpile. It is not Australia's first toxic waste stockpile and will not be the last. The addition of 9 new chemicals to Annex A of the Stockholm Convention this week will have repercussions in terms of Australia's stockpile of banned and hazardous waste. No doubt further chemicals will be added in future and Australia needs to come to grips with its toxic legacies and develop a sound and modern non-thermal hazardous waste treatment capacity. To do otherwise is to shirk our international and intergenerational responsibilities.

Question 8.

There are a number of approaches to product stewardship operating in Australia.

- *What, if any, role is there for a national approach and what would be the costs, benefits, opportunities and focus of such an approach?*
- *What models might work in Australia?*

There appears to be only one approach to product stewardship in Australia that is operating and working (SA CDL). It is staggering to believe that there is not sufficient data on the costs and benefits of a product stewardship program for the programs that currently operate.

ACE rejects the premise that the product stewardship program for waste oil in Australia is effective or indeed provides a better environmental outcome. It is ACE's understanding that there are very limited avenues for the true recycling of waste oils, and the majority of waste oils are inappropriately used for energy purposes (burning in cement kilns, "incinerated" in outdated and uncontrolled equipment) or exported to other jurisdictions for use for power generation or heat raising. The only ecologically sustainable outcome of a waste oil recycling program should be the production of lubricating oil "bright stock" for use in formulating new lubricating oils and a stabilised waste residue, which ACE understands has been successful in some jurisdictions in Australia.. Anything else is a destruction of a valuable resource for, in most instances, an inadequate amount of power and the likely emission of a large number of toxics.

Western Australia has major problems with waste oil due to lack of treatment and recycling options. In a number of recent cases no extra waste oil storage capacity could be found and shipments of waste oil were sent to Singapore and the Christmas Islands as fuel oil. Doubts remain as to whether these shipments were compliant with the Basel Ban standards for RFO. Oil companies are indifferent to their responsibilities in this sector and

provide little or no support to initiatives to recycle oils. In many cases they compete directly with recycled product (such as it exists) by selling virgin products at a lower price.

Inevitably the storage capacity in WA will be exceeded again soon as the fundamental problems of the sector have not changed. When this occurred last time the local government landfill depots stopped taking used motor oil from the public and oil from automotive workshops could not be collected by private contractors. It is only a matter of time before widespread illegal dumping of oil begins.

ACE strongly supports Extended Producer Responsibility and Container Deposit Legislation at a National level to be implemented by the states as a matter of urgency.

Question 9.

Are there any aspects of waste management that could be improved or streamlined through adopting national standards?

A great deal of care needs to be taken to avoid confusion over Standards and Regulation. A standard that is not legally binding is of little consequence in the absence of effective regulation, and can result in the misleading of communities and other stakeholders.

ACE believes that a definition of hazardous waste should be a priority, as should the establishment of a list of approved or appropriate waste treatment methods. There should be a uniform means of assessment of technical and siting criteria for hazardous waste and municipal waste treatment facilities. The establishment of suitable set of MSW derived composts guidelines should be established that incorporate suitable criteria for chemicals of concern. A suitable hierarchical set of criteria needs to be established that will differentiate application criteria for MSW derived composts (eg: suitable for organic produce, suitable for home garden use, not suitable for land application etc . . .). These criteria must also make the risks associated with the use of the products clear to the potential user. Current warnings on these products are limited to bacterial and biological hazards only.

Question 10.

What fundamental data sets does Australia need to collect to better inform waste management policies, practices, investment, business operations and to assess and manage risk?

Australia needs to generate an extensive data set on the wastes that are generated, and it is somewhat concerning that this data does not already exist. It is indeed a sad indictment of the management of this process that in almost 20 years since the need to establish a waste database was agreed to, the fundamental question of what data we need to collect still has not been established, and hence we have very little data. As mentioned earlier in this submission, useful data on the various waste sectors cannot begin to be collected if the definitions of the waste are incoherent, contradictory or non-existent. It is very difficult to manage and evaluate the progress in reducing a waste stream if you cannot define it and thereby create a baseline of data for future evaluation.

ACE is aware of a number of jurisdictions that have conducted quite extensive waste surveys. It is suggested that the DEWHA investigate these surveys to assess the criteria used, determine the best and most extensive set of criteria, and to then implements nationwide data collection using the best criteria and require compliance from all parties. In

general, the more data that is collected initially, the faster the output of meaningful data. The avoidance of collecting a minimum dataset, only to have to collect further data at a later date, should be a governing criterion in this instance.

Data on landfill leachate is also a dataset that required development. As a minimum, all landfill leachate should be measured and recorded into a database, so as to identify waste and chemical residues that have the potential to impact health and the environment. This database needs to inform assessment processes at the upstream end where the original approvals and risk assessments are undertaken and so as to inform these processes of emerging issues such as the identification of chemical residues that have not adequately accounted for their environmental fate. For example, the high levels of residues of pesticides and industrial contaminants that have been recently documented in WA's Swan River Trust investigation into river quality and nutrient/pollution levels. Again the levels of waste residues/pesticides/chemical residues being identified in Australian human breast milk and blood is serious cause for concern and urgently requires action so as to reduce these residues entering the environment and ultimately our bodies particularly our most vulnerable, our kids and their future.

Question 11.

What, if any, place should there be for approaches that seek to avoid waste through changes in design, production processes and transport?

ACE believes that a heavy handed approach should apply when seeking to avoid the production of wastes. A waste that is avoided is a waste that does not need to be managed. This approach should be extended to standards that will control the currently unreasonable level of packaging that is used on retail products.

There has been too much talk and not enough action when it comes to mechanisms to avoid the production of wastes. The talking has only served to delay the implementation of meaningful changes, so it must be time for firm regulatory action.

ACE supports National standards to require manufacturers to implement recyclable components and eliminate built in obsolescence. This is an urgent and long overdue standard

Question 12.

What changes could be made to improve management of the municipal waste stream and those of the commercial and industrial sector and the construction and demolition sector?

It would appear that one of the major barriers to improvements in the levels of C&D and C&I waste that are landfilled would be the low cost of landfill. If the costs to dispose of materials to landfill were increased to a level that would encourage the recycling or treatment of materials, there would be significant diversion from landfill. Other mechanisms would need to be introduced to avoid unauthorised dumping of these materials in inappropriate areas. It may also require other mechanisms which would require the mandated reuse of deconstruction materials.

Salvage materials are very popular with the public and tradesmen who are renovating older housing stock (particularly timber frame housing). However, incentives to deconstruct buildings rather than demolish them are evaporating in the face of high insurance costs and time differentials. Some instrument of regulation in the demolition industry to require

minimum levels of recycling would be useful but the key element required are higher landfill costs and/or a ban on timber dumping at landfill. Some schemes in WA have involved the reuse of commercial scrap wood and off cuts for shredding and use as stock bedding and other purposes. The success of the schemes has not yet been evaluated.

Some brick manufacturers are now accepting old and broken bricks for use as an aggregate in new brick product and this has been taken up by householders and small contractors as an alternative to landfill costs. However larger demolition companies continue to bring down building as an agglomeration of materials that include glass, concrete, timber and soil mixed with bricks. This makes the waste loads unacceptable to the brick recyclers and manufacturers. Clearly some form source segregation at the demolition site is required to maximise the recyclable content of demolished or deconstructed buildings. The management of source segregation and recycling targets for demolished building should be managed by state or local authorities via a reporting mechanism demonstrating the types and quantities of materials diverted from landfill and their destination.

Question 13.

Landfill is currently the primary means of waste disposal. What, if any, changes need to be made to manage Australia's waste stream in the long term given current trends in the volume and nature of the waste?

The use of landfill is generally the least effective and least sustainable method of waste disposal. The only method that is generally accepted to be worse than landfilling is the open burning of waste or the burning of waste in an incinerator. A recent stakeholder led consultation in Western Australia overwhelmingly determined that landfilling and incineration of hazardous waste was unacceptable to the public of Western Australia and should not be considered. The incineration of wastes is rejected by almost all community and environmental groups and the wider community.

There are many ways of managing wastes that will result in more appropriate environmental outcomes. The enshrinement of the "waste hierarchy" in waste management policy is central to this, although some aspects of the waste hierarchy have different meanings to different sectors. "Recovery" should not include the recovery of energy by any means that includes a thermal process and is defined as Incineration by the EC Directive on the Incineration of Waste. It is the understanding of ACE that the EU does not consider energy recovery as a "recycling activity" and rightly so, as the destruction of resources should not qualify as recycling.

Source separation is also central to effective waste management, in fact, trying to keep particular wastes out of the waste stream is sometimes more important. The treatment or management of discreet waste streams will always be more effective than the attempts to manage comingled wastes. There is considerable merit to the mandating of a particular MSW collection mechanism (two bin or three bin systems) which will minimise differences in collection mechanisms and potentially improve economies of scale for waste management facilities.

The management of the organic fraction of waste streams is of particular importance. There should be no landfilling of uncomposted organic materials. The introduction of organic materials into landfills is the primary source for the generation of landfill gas and leachate. If they were excluded, some of the major problems with current landfills would be avoided. Their beneficial reuse would obviously be a better outcome, and should have

suitable mechanisms that will encourage reuse, for instance, a ban on organic materials to landfill which is ACE's understanding of the current EU process.

Significant work needs to be done to develop markets for the resources that are recovered from the various waste streams. Suitable standards need to be established for the application of MSW derived composts. Suitable processing facilities for paper, glass, plastic, ferrous and non ferrous metals, electronic equipment need to be established.

Question 14.

Reducing the amount of organic waste sent to landfill has the potential to contribute to reducing greenhouse gas emissions as well as other potential environmental and economic benefits. What are the benefits and opportunities, costs and disadvantage of increased diversion and/or recycling of organic wastes?

At the risk of responding to a rhetoric question, there are a multitude of benefits to be obtained by diverting organic waste from landfills. In fact, there are a similar amount of benefits from diverting all materials from landfills.

The benefits and opportunities can most likely be found in the EC Landfill Directive whose overall aim is "to prevent or reduce as far as possible negative effects on the environment, in particular the pollution of surface water, groundwater, soil and air, and on the global environment, including the greenhouse effect, as well as any resulting risk to human health, from the landfilling of waste, during the whole life-cycle of the landfill". It would be difficult to understand the implementation of a directive such as this without a significant body of work to underpin its implementation. ACE is sure that if DEWHA would request this information, the EC would gladly provide it.

Question 15.

What, if any, changes are needed to the way e-waste is managed?

There are significant changes needed to the way we manage e-waste. Guidance should be sought from other jurisdictions (EU etc) to establish the requirements for a successful e-waste management program. The implementation of an EPR, upfront disposal deposit or levy, or a take back program should be negotiated with major electronic product manufacturers and importers. Electronic waste must be banned from landfills and stockpiles established in controlled conditions until recycling operations come on-line.

Regional Australia also requires a tailored recycling programme for e-waste that may require government support in the likely event that commercial collections are unviable..

Question 16.

The Carbon Pollution Reduction Scheme will apply to emissions from landfill. Are there related approaches that would complement the scheme and thus contribute to meeting the emissions targets and the timeframes set in the Australian Government's climate change policy?

ACE is somewhat mystified by this question. The information that was provided gives clear evidence of the benefits of diverting "recyclables" from landfill, and in the instance of biologically and fossil fuel derived materials, can avoid significant greenhouse gas emissions and generation of landfill leachate. There is also little doubt that the recycling of recyclable materials is generally many more times efficient in terms of energy and greenhouse gas emission than the production from virgin materials.

This demonstrates the importance of having the tools to determine these costs and benefits, in particular the whole-life-cycle methodologies that were agreed to in the 1992 National Strategy for Ecological Sustainable Development. The development and publication of these methodologies should be of a high priority.

Question 17.

What are the opportunities to reduce water and energy use through the way waste is managed?

ACE is somewhat mystified by this question. The information that was provided gives clear evidence of the benefits of diverting “recyclables” from landfill in terms of reduced water use and energy savings.

ACE is of little doubt that the diversion of “recyclables” from landfill is not only a worthy goal of any waste management scheme and should be actively pursued in all jurisdictions, but is just plain common sense. It also clearly demonstrates the need to use whole of lifecycle analysis and incorporate the concepts of embedded energy into decision making that involves various waste management processes.

Question 18.

In what ways can waste management and resource recovery (including recycling, re-processing, re-manufacturing) industries add further value to the economy and create employment?

There are multitudes of ways that the economy can benefit from an integrated resource recovery framework. In Western Australia, there have been two closures of facilities that had the ability to recycle paper and glass. This undoubtedly has cost a significant number of jobs and opportunities to add value to the economy. It has also resulted in the destruction of a significant amount of resources in the form of an immense amount of landfilled glass that was “not economic” to transport to South Australia for recycling, and a similar amount of paper that was landfilled or sent overseas for recycling. This is an example of a market place failure.

Should it have been allowed to happen by the State and Federal Governments? Does it demonstrate that there is a need for more government intervention in what is essentially a commercial enterprise? Does it demonstrate a need for State owned downstream materials recycling facilities? Does it demonstrate an unreasonably low cost of producing virgin materials (no inclusion of externalities)? Does it need landfill levy supported downstream materials recycling facilities ?

Conclusions

ACE has approached the National Waste Policy with some caution. There have been too many instances in recent history that shows that there is little goodwill demonstrated by our decision makers to deliver meaningful results when it comes to waste management.

ACE is aware of a number of programs that demonstrates exceptional leadership in the area of waste management, but is also all too aware of instance of very poor leadership and in some instances, negligence and downright criminal behaviour. Our members sincerely hope that this National Waste Policy is the beginning of the journey to a truly sustainable waste management framework.

During the course of this submission, ACE has made the following suggestions:

- That a **Sustainable Waste Management Framework** be developed that will encapsulate the principles and outcomes of a truly sustainable waste management framework that will serve as a model for all jurisdictions.
- That DEWHA establish a “reference or stakeholder group” that can advise DEWHA on process and protocols for meaningful engagement with all stakeholders
- That DEWHA establishes a Community Engagement Charter (similar to the NICNAS charter) that will allow for equitable access and comment from the most important participants in the process; your stakeholders.
- That DEWHA seek guidance from the Australian Environment Network (AEN) to source appropriate representatives from the environment movement to participate in any such taskforces, stakeholder groups and consultative processes that may be established.
- That DEWHA establish a Taskforce to coordinate and drive the Federal, State and Local Governments approaches to waste management to ensure compliance with international obligations.
- That DEWHA implements, as a matter of urgency, national Extended Producer Responsibility and Container Deposit Levy Legislation.
- That DEWHA harmonise the definition of Hazardous Waste across all jurisdictions. It is recommended that the EC Hazardous Waste Directive be adopted as a suitable guideline.
- That DEWHA establish a stakeholder / public participation program that will establish siting and technology criteria for locating and operating hazardous waste treatment facilities.
- That DEWHA establish a suitable classification process for waste treatment “by-products” to ensure that they are “fit for use” and provide suitable “right-to-know” information for users.
- That DEWHA fulfil our obligations to be responsible for the wastes that we generate, and mandate that all waste that are generated within Australia are treated in Australia
- That DEWHA fast track the data collection process for waste generation.
- That DEWHA develop and publish whole-life-cycle methodologies for all major waste streams and problematic wastes as a matter of urgency.

ACE also requests that it be kept fully informed of all consultative processes that are undertaken by DEWHA.