# **Examples of industry sector data programs**

The industry associations below collect data partly at least in response to obligations under the National Packaging Covenant and other agreements with government (e.g. eco-efficiency agreements, industry waste reduction agreements). These industry-wide reports are particularly useful in providing national data.

# Plastics and Chemicals Industry Association (PACIA)

PACIA collects data annually on plastics manufacturing, imports, reprocessing and waste exports through the National Plastics Recycling Survey to provide information to member companies, government and the community. The survey was first conducted in 1992 and has been repeated for calendar years 1996, 1997, 2000, 2001 and 2002.

The 2005 survey covers Australian resin producers, waste plastics reprocessors and waste exporters and aims to give an accurate picture of the plastics recycling industry as a whole during the 2004 calendar year, and the rate of plastics recycling achieved. The PACIA survey aims to obtain up-to-date and reliable recycling data to:

- provide information for responses to international surveys
- provide reliable data to government and the broader community
- provide an understanding of the current state of recycling and reprocessing across a number of sectors and polymer types
- provide information on packaging recycling rates to the National Packaging Covenant Council
- provide an indication of the import and export flows in certain market sectors
- determine recycling rates relative to consumption
- gather information on the use and destination of recycled plastics materials.

Polymer consumption data are obtained from a combination of sources, including Australian resin producers, resin importers, the Australian Customs Service, and Australian plastics reprocessors. Plastic recycling by plastic reprocessors contributes to consumption if the recyclate is reused locally. Fifty-nine domestic reprocessors and two major exporters were surveyed.

#### **Publishers' National Environment Bureau (PNEB)**

Australia's newsprint manufacturer and the major Australian newspaper and magazinepublishing companies were the first industry group to adopt an industry waste reduction agreement formulated by the Australian and New Zealand Environment and Conservation Council.

The newsprint producer/publisher group signed the first five-year agreement with state and territory governments and the Australian Government in 1991. Since then the group has reported against targets each year in newspaper recycling reports (see <a href="http://www.pneb.com.au/press.html">http://www.pneb.com.au/press.html</a>). The reports cover all aspects of the achievements of the collaboration between the manufacturer, publishers and national, state and local governments.

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#### **Australian Food and Grocery Council (AFGC)**

AFGC produced environment reports in 2001 and 2003, part of an eco-efficiency agreement with DEH, key features of which included the development of a benchmark report of the level of the environmental inputs, outputs and impacts of processed food and grocery production in Australia and a periodic AFGC environment report, made publicly available.

The environment report for 2003 (see

http://www.afgc.org.au/cmsdocuments/AFGC%20Enviro%20Rpt%202003\_Final.pdf) emphasises a supply chain approach to environmental management, from primary industries through processing, packaging, transport, refrigeration, sale and consumption. AFGC stresses a resource efficiency approach to reporting on and improving the efficiency of production, and reducing the environmental impacts. It has established industry key performance indicators for water, greenhouse gases and waste which enable companies to benchmark their own performance and to track changes over time. The key performance indicators also enable the industry to assess its environmental impact in relation to the overall system of production and consumption. Fifty-one member companies responded to the 2003 AFGC Environment Survey, with 37 companies reporting against key performance indicators, compared with 43 and 18 companies respectively in 2001.

#### **National Association for Crop Production and Animal Health (Avcare)**

Between 2001 and 2003 the Australian Government provided funding support to Avcare, the Australian association for crop production and animal health, under an eco-efficiency agreement. Key elements of the agreement were to measure and report on the overall environmental performance of Avcare's member companies. Three environment reports were produced, providing eco-efficiency indicators for electricity, gas, energy, greenhouse gas and water consumption per kilogram of product and net sales. Avcare members are now represented by two bodies – CropLife and Animal Health Alliance (Australia) Ltd. Avcare environment reports are available at <a href="http://www.croplifeaustralia.org.au/default.asp?V">http://www.croplifeaustralia.org.au/default.asp?V</a> DOC ID=939

# **Appendix D**

# **Product stewardship examples**

#### **PVC** product stewardship

A voluntary industry product stewardship commitment was released by the Vinyls Council of Australia in November 2002. The agreement was developed in consultation with DEH.

The voluntary initiative includes a range of commitments and builds in a life cycle approach. Waste management features strongly, but the commitments also have a strong focus on aspects such as minimising pollution from the vinyl production process and material/product design. In implementing its commitments the industry has been responsive to community concerns about vinyl and its environmental performance, despite its view that these concerns are not always justified by the science.

By the end of 2005 the industry was able to report significant achievements and it established new commitments including:

- ensuring imported resin met or exceeded US and European standards for inclusion of residual vinyl chloride monomer (Australian made resin had already met or exceeded those standards)
- a complete phase out of cadmium stabilisers
- an additional commitment to phase out lead stabilisers in all applications by 2010
- an expanded commitment to ensure all signatories maintain compliance with the National Packaging Covenant
- trial pipe recycling projects
- completion of a major study into vinyl waste that will allow identification of priorities for the development of vinyl recycling initiatives.

The industry is concerned about the potential for non-participating companies to obtain commercial advantage over the signatory companies, and has indicated interest in co-regulatory protection.

# Agricultural and veterinary chemicals product stewardship

#### ChemCollect

ChemCollect was a one-off national program that collected dangerous, unwanted and banned farm chemicals from farms and market gardens for safe disposal. The program's purpose was to protect human and environmental health and international markets for Australian agricultural products. (Australian agricultural producers had in previous years experienced a number of very costly chemical contamination incidents.) ChemCollect reached approximately 16 7281 farmers around Australia and collected about 1670 tonnes of unwanted chemicals between 1999–2002.

The EPHC had agreed to fund the \$27 million ChemCollect program contingent on industry agreement to fund and implement ongoing collections for unwanted chemicals (Chemclear). It is believed that the bulk of deregistered chemicals present

on farms at the time were collected by the ChemCollect program, clearing the way for industry to regularly collect and dispose of more recently produced (and thus non-orphan) products.

#### ChemClear

ChemClear is a voluntary industry program to collect and dispose of unwanted or deregistered agricultural and veterinary chemicals in rural areas. Commencing in 2004, the program aims to reduce the possibility of chemical contamination and associated human and environmental health risks. The costs of the scheme are recovered through a levy paid at purchase by the farmer. The disposal of chemicals whose registration expired more than two years ago, or that are sold by non-participating companies, attracts a fee.

ChemClear is implemented by Croplife – the National Association for Crop Production and Animal Health – the Veterinary Manufacturers and Distributors Association (VDMA), the National Farmers Federation (NFF) and Agsafe, an independent subsidiary of Croplife. DEH and its state and territory counterparts were involved in the negotiations for the development and implementation of ChemClear, and government representatives participate as observers in the ChemClear Steering Committee.

#### Industry waste reduction scheme – drumMuster

The agricultural chemicals industry also has an industry waste reduction scheme, agreed with industry and governments in 1998. The scheme has two main objectives:

- (i) to reduce the number of containers entering the distribution stream through setting industry targets aimed at encouraging manufacturers to adopt alternative packaging containers, technology and/or formulations
- (ii) to ensure non-returnable containers have a defined route for disposal that is socially, economically and environmentally acceptable.

Established in 1999, drumMuster is the national industry program for the collection and recycling of empty, cleaned, non-returnable agricultural and veterinary chemical containers. Under drumMuster, non-returnable chemical containers (between one and 205 litres) are collected and recycled. A four-cent per litre or kilogram levy is added to the purchase price of products. Levy funds are used to reimburse local governments or other collection agencies for costs incurred in collection and recycling.

The 2000 review of drumMuster showed that the target of 66 per cent recovery of containers was met, with over five million containers comprising 8000 tonnes of plastic and steel waste collected for recycling. The industry was also estimated to have reduced the total amount of packaging it used by 26 per cent in 1999 compared to 1991. It achieved this primarily through increasing the use of containers that could be returned to the manufacturer for reuse, as well as changing chemical formulations so that they are more concentrated. To January 2006 drumMuster has collected over 7.5 million containers.

The outcomes of the program compare favourably to container collection programs in the United States and Canada. The number of materials contractors in Australia has expanded from one to 15 during the program's operation, suggesting that drumMuster has successfully stimulated growth in the container recycling and recycled products industries.

#### **Product Stewardship for Oil Programme**

Underpinned by Australian Government legislation (*Product Stewardship (Oil) Act 2000*), the Product Stewardship for Oil (PSO) Programme has succeeded in significantly reducing the amount of waste oil 'lost' in the environment each year. Prescribed benefit rates for oil recyclers and a mandated standard for re-refined oil supported the development of a lube-to-lube recycling industry in Australia. Reviews of both the transitional assistance component of the program and the *Product Stewardship (Oil) Act 2000* were completed in late 2004: both commented favourably on the program (Allen Consulting Group, 2004, ATSE, 2004).

The scheme addresses the appropriate disposal of the 280–300 million litres of used oil generated in Australia each year. Prior to the PSO Programme only about 150–160 million litres was being recycled: about 100–150 million litres was unaccounted for or lost in the environment. This had ramifications for biodiversity, environmental and human health, and Australia's ecologically sustainable development objectives. It also imposed significant costs on the Australian economy arising from the need to redress the effects of used oil pollution and reduced the benefit of public expenditure on environmental restoration.

A range of differentiated benefit rates are prescribed under regulations. The benefit rates broadly reflect the recycling effort and investment required to produce products of better quality with improved environmental outcomes. The categories and benefit rates were founded using the principle that benefits should only be paid where they might serve as an incentive for increased recycling activity. This was given precedence over other factors. Benefits are designed to encourage the increased recycling of used oil and not to simply reward current good practice or provide industry assistance.

The product stewardship arrangements implemented through the PSO Programme have successfully increased the collection, recycling and reuse of used oil, increasing recycling rates by over 40 per cent since January 2001. In 2004–05, over 220 million litres of used oil, approximately 80 per cent of the potentially recoverable used oil in Australia, was recycled. The diverse range of markets for different types of recycled used oil products ensures ongoing demand and value adding for a resource formerly considered to be a waste product.

In addition to the levy and benefit arrangements established under the PSO Programme, a temporary grant funding element was established to engender change that would underpin the long-term sustainability of the industry. Transitional assistance funding has been provided to local governments to install used oil collection facilities, with over 800 facilities now established across Australia, ensuring that the community have easy access to central collection facilities. Transitional assistance is also being used to pursue integrated waste management facilities for Australia's Indigenous and remote communities, to fund new recycling technologies and to raise public awareness regarding used oil management.

The PSO Programme has effectively applied product stewardship concepts to a waste stream issue, resulting in a growing market for an energy resource. Experience gained through the implementation of this programme could be applied to a range of other

waste streams, including solid waste, optimising opportunities for resource use efficiency and recovery.

# Ozone depleting substances and synthetic greenhouse gases

In 1993, Australian industry established Refrigerant Reclaim Australia (RRA) to manage the collection, recovery, reprocessing and safe destruction of used ozone depleting substances, including chloroflurocarbons (CFCs). RRA, previously known as the Ozone Depleting Substance (ODS) Reclaim Fund, was financed through a voluntary contribution from the importers of bulk ozone depleting refrigerants and refrigerant wholesalers. The program was extended in 2001 to include the recovery of hydrofluorocarbons (HFCs).

Since 2005 all importers of ODS and synthetic greenhouse gas (SGG) refrigerants, including importers of pre-charged refrigeration and air conditioning equipment, have been required to have arrangements in place to manage their refrigerant at the end of its life. To date the RRA scheme is the only management arrangement put forward that satisfies the Australian Government's product stewardship requirements. Since April 2005 it has been a licence condition that all importers of ODS and SGG (including hydrochloroflurocarbon (HCFC) and HFC refrigerants) contained in precharged equipment) contribute to RRA.

RRA is funded by a voluntary levy of \$1 per kg on importers. These funds are then used to:

- pay a rebate for contractors and technicians to collect the refrigerant
- pay a rebate for the wholesaler to accept and decant the refrigerant
- pay the transport contractor to collect and deliver the refrigerant
- ultimately recycle and re-use or destroy the refrigerant.

To encourage the reclamation of used refrigerants, the wholesalers pay \$5 per kg for returned refrigerant. Under the program, contractors recover contaminated unwanted refrigerants from equipment into refillable cylinders supplied by the wholesaler. Full cylinders are returned to the wholesaler by the contractor, who receives in return a credit of \$5 per kg. RRA will continue to facilitate the reprocessing, safe and effective storage or safe disposal of used refrigerant.

Recovered and reclaimed ODS and SGG can then be used to minimise the requirement for new ODS and SGG, as well as for the maintenance of older equipment that continues to operate on older CFC refrigerants where imports are now banned, until the end of their useful operating life.

RRA has undertaken the recovery and safe destruction of ozone depleting substances since 1994. In that time it has recovered more than 1300 tonnes of ODS and SGG refrigerants that would otherwise have been emitted to the atmosphere.

# Australian Retailers' Association Code of Practice for the Management of Plastic Bags

The Australian Retailers' Association (ARA) *Code of Practice for the Management of Plastic Carry Bags* is a product stewardship agreement between Australian governments and retailers that aims to achieve a managed reduction of single use, lightweight plastic carry bags. The underlying objective is to reduce the volume of plastic bags in the litter stream.

Agreed to in October 2003 and expiring on 31 December 2005, the code committed signatories to a 25 per cent reduction in plastic bag use by the end of 2004, a 50 per cent reduction in plastic bag use by the end of 2005, and increased recycling rates. The code outlined commitments for signatory retailers to work with governments, other industries and the broader community to achieve these targets. This involved encouraging the reuse and recycling of plastic bags, supporting the development and promotion of alternatives to plastic bags, and achieving a reduction in plastic bag litter.

These arrangements acknowledge that different parties involved in the life cycle of plastic bags, such as retailers, recyclers, the plastics industry, governments and consumers, all have a shared responsibility for minimising the impacts of plastic bags on the environment.

An interim progress report submitted by the ARA in June 2005 indicated that signatory retailers had achieved a 33.8 per cent reduction in the rate of plastic bags they issued, and that they were on track to achieve the targeted reduction of 50 per cent by the end of 2005. A final report from the ARA on the overall plastic bag reduction achieved is due in March 2006.

As there is no requirement for retailers to maintain any actions under the code after 31 December 2005, in early 2006 the Australian Government and state and territory environment ministers will consider a range of options for reducing the use of lightweight, single use shopping bags.

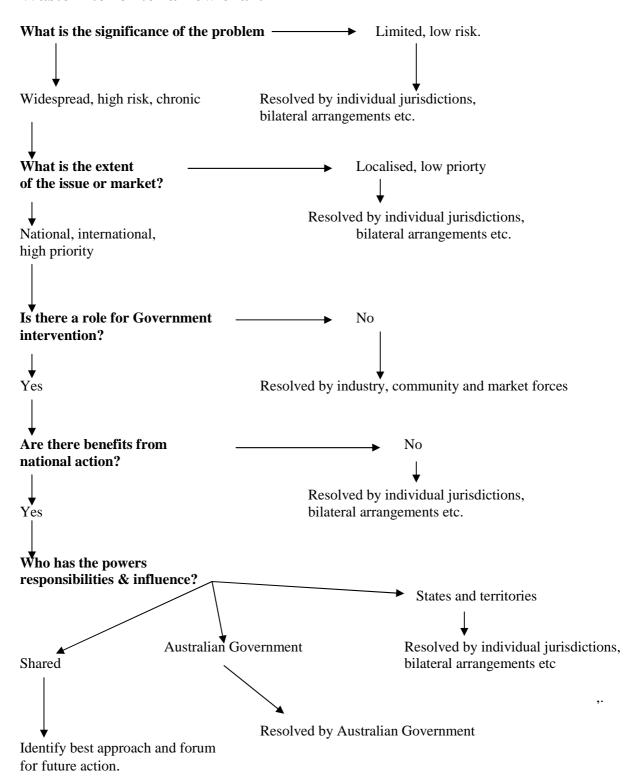
#### **MobileMuster**

Launched in January 2006, MobileMuster is a voluntary product stewardship program for the collection and recycling of unwanted mobile phones. The program was initiated by the mobile phone industry to minimise the impact of mobile phone waste on the environment, and to improve resource recovery and reuse.

Managed by the Australian Mobile Telecommunications Association (AMTA), MobileMuster collects mobile phone handsets, batteries and accessories to recover the plastics and metals for use in manufacturing new products. Funded by industry members and free to customers and retailers, mobile phone waste is collected through a network of over 1000 mobile phone retail outlets and government agencies. By 2008, the scheme aims to treble the annual collection of mobile phone handsets, batteries and accessories from 60 to 180 tonnes per annum and halve the number of handsets going to landfill.

# EPHC waste filter criteria flowchart and National Waste Framework<sup>1</sup>

# Waste filter criteria flow chart



<sup>&</sup>lt;sup>1</sup> This framework and filter criteria were developed by the Waste Working Group and were endorsed by EPHC in October 2002.

#### **EPHC National Waste Framework**

- 1. Goal
- 2. Objective
- 3. Defining Issues
- 4. Filter Criteria
- 5. Prioritisation
- 6. Potential Tools
- 7. Recommendation to Standing Committee / Council

#### 1. Goal

To assist EPHC achieve its goal to protect and manage Australia's environment and its natural and cultural heritage by identifying and addressing waste management issues of national importance.

#### 2. Objective

To establish a systematic framework to determine waste issues upon which national collaboration would be appropriate. The framework will be used by all jurisdictions in developing proposals for EPHC action.

# 3. Defining Waste Issues

A crucial first step in determining whether a waste issue requires national action is to clearly define and characterise the issue.

Factors to consider in characterising the issue include:

- environmental, economic and social drivers
  - o volume and toxicity of the waste
  - o risks to human health
  - o resource use efficiency
  - o people affected
  - o current costs, who is bearing them
  - o potential cost of addressing the issue
- actual and potential environmental impacts
  - o quantified where possible
  - o whether a precautionary approach is justified
- timeframe across which the issue operates, including recovery time
- geographical context, locations affected
- existing frameworks
  - o applicability
  - o barriers to resolving issue through these
- research needs
- identification of stakeholders

In addition, variation in all these factors across jurisdictions should be identified and noted.

#### 4. Filter Criteria

The standard filter criteria, tailored to waste issues, are set out below.

#### a) What is the significance of the problem?

#### Consider:

- severity of environmental / health risks
- degree of risk of continuance or reoccurrence
- potential for resource recovery
- downstream consequences (benefits and costs)
  - o of the issue
  - o of unilateral action
  - o of bilateral action
  - o of multilateral action
  - o of national action

If the waste issue affects a limited area, risks are low and consequences are limited, it may be best resolved by individual jurisdictions or bilateral arrangements. If the issue affects a broad area, risks are high and consequences substantial, a national approach may be considered in light of the other criteria – see questions below.

# b) What is the extent of the issue or market?

#### Consider:

- geographic range (which jurisdictions are affected? to what extent?)
- local (e.g. area or state/territory specific) issues or market
- statutory differences between jurisdictions (eg regional environment, land-use, industry)
- trans-boundary (including downstream) impacts
- international impacts
- priority of issue in different jurisdictions

If on the basis of consideration of the above the issue is localised, varies greatly across jurisdictions, has limited trans-boundary impacts and is generally of low priority, it may be best resolved by individual jurisdictions or bilateral arrangements. If the issue is of international or national significance and generally of high priority, a national approach should be considered in light of the other criteria – see questions below.

#### c) Is there a role for Government intervention?

#### Consider:

- what is the need for government intervention?
  - o protection of the environment
  - o advancing public good
  - o protecting public health and safety
  - o market failure identify and justify intervention
- are existing legal and policy settings adequate?
  - o international treaties and agreements
  - o national laws, policy framework
  - o state and territory laws and policies
- consequences of government inaction

If industry, community and market forces are unable to resolve the issue then Government can play a beneficial role. If the issue is adequately addressed through existing arrangements, no further action may be required. If existing arrangements are inadequate, consequences of inaction are significant, and the scale and scope support national action, a national approach should be considered in light of the other criteria – see questions below.

# d) Are there benefits from national action?

#### Consider:

- existing laws, policies and programs
  - o scope
  - o effectiveness
  - o gaps
- would national action duplicate or undermine existing state / Commonwealth / national arrangements?
- what are the benefits to government, industry and the community from national consistency?
- is a national approach cost effectiveness for all jurisdictions?
- what are the relative cost and benefits of other ways to get the same or better outcomes?

If national action would duplicate or undermine existing effective arrangements or if alternative approaches would generate greater benefits with fewer costs, the issue may be best resolved by individual jurisdictions. If existing arrangements are ineffective or could be strengthened through national consistency, and a national approach is cost-effective, a national approach should be considered in light of the other criteria – see questions below.

#### e) Who has the powers, responsibilities and influence?

#### Consider:

- benefits of uni/bilateral vs. national approach
- role of NEPC in regulatory solutions
- Commonwealth powers in external affairs, trade and tax
- state and territory roles in implementation and enforcement of national and international agreements
- Commonwealth role as facilitator, including working with national industry bodies
- roles of different spheres of government
- level of enforcement required
- other ways the issue could be addressed
- potential tools (see section 6)
- issue should be led by the jurisdiction(s) with primary interest

Different policy tools and approaches are available to address waste issues. Powers and responsibilities play an important role in determining which tool is most appropriate in a particular case - see Part 6 below.

#### 5. Prioritisation

Only the most important issues, which will generate the highest environmental benefit from national cooperation, should be referred to the Standing Committee and Council for consideration.

The primary considerations in assessing priority are;

- significance of impact or harm
- analysis of the cost and associated benefits of any action and
- the level of social and community concerns

#### 6. Potential Tools

When developing proposals for EPHC action on national waste management issues, jurisdictions should consider and evaluate a range of different policy tools so the tool most suited to addressing the issue is identified and recommended. Options and approaches outside the EPHC/NEPC framework, including informal cooperation, should also be considered.

In evaluating potential tools, jurisdictions should:

- recall the scope and scale of the issue
- recall the distribution of powers and responsibilities
- identify stakeholders
- identify capacity of government and industry
- identify (and quantify, where possible) the direct and indirect consequences of the different tools
- consider appropriate evaluation mechanisms

Refer to table of Policy Instruments attached.

# 7. Recommendation to Standing Committee / Council

The waste framework should be applied to all waste issues proposed for Standing Committee and Council consideration. All jurisdictions should be notified and endeavour to meet to discuss the application of the waste framework to a particular waste issue prior to it being put on the Standing Committee and/ or Council agenda.

# **Policy Instruments**

	Outcomes	Strengths	Weaknesses	Examples
Туре				
Research	Improved understanding of issue	Useful where emerging or	May be seen as delaying tactic.	
	and potential solutions (for govt	poorly understood issue, or	Govt and industry capacity to	
	and stakeholders)	where knowledge gaps prevent	address findings may be limited.	
		proper scoping.	Duplication problems if poor	
			coordination.	
Information/	Better informed public and	Improves understanding of	Limited ability to change	
education	industry	issues.	practices. Hard to quantify	
programmes		Can help change behaviour.	outcomes. Duplication	
			problems if poor coordination.	
Voluntary	Better performance by industry	Fosters industry ownership of	Unenforceable, so some industry	
Standards,		issue.	members lag behind unless	
Guidelines (state,		Promotes innovation and	legislation forces adoption and	
national)		improvements.	compliance. May, however,	
		Provides criteria for independent	form basis for purchasing policy	
		performance assessment.	and/or co-regulation program in	
			future.	
Bi/multilateral	Range of instruments – research,	Useful where transboundary but	Per relevant instrument.	
agreements	voluntary or mandatory	not national issue.		
	standards etc. Ensures	Can improve coordination of		
	uniformity across jurisdictions	research and action, eliminate		
	involved.	market distortions, share costs.		
Voluntary	Industry commits to meeting an	Promotes innovation and	Depends on voluntary uptake by	Industry Waste
national	agreed standard, target or other	improvements.	industry. Effectiveness may	Reduction
agreements	outcome	Sets uniform national goals.	decrease with time as other	Agreements.

		Requires limited government resources.	priorities take precedence.	Greenhouse Challenge.
Co-regulation (voluntary agreements with regulatory underpinning)	Industry commits to meeting an agreed outcome and after set period of time regulations mandate compliance for whole sector.	Improves performance of sector as a whole. Prevents free-riders. Enforceable.	Improvements may be limited to minimum commitment under agreement / regulations. Targets (if standard) strongly debated and are may be seen as inequitable between materials.	National Packaging Covenant
Environmental improvement programmes (innovation waivers)	Improved performance by companies or sectors over extended timeframe	Provides greater flexibility in achieving compliance. Promotes innovation. Can foster public participation in issue.	May be perceived as a way to delay change.	
Regulation (state, national)	Statutory mechanism requiring compliance with specified targets/outcomes	Concessions / exemptions can be agreed and clearly defined. Enforceable penalties for non- compliance.	Requires substantial government resources to develop, implement and enforce. May inhibit innovation if overly prescriptive.	
Complementary regulation	Identical / equivalent statutory regime in each jurisdiction	Uniform / consistent legal framework. Provides equal and enforceable level of environmental protection across Australia. Avoids distortion of legitimate national markets.	In practice, different priorities in different jurisdictions can create patchy framework.	
Take back legislation	Industry required to take-back, recycle and finally dispose of products they manufacture	Provides strong incentive for life cycle management, eco-design. Easy to implement from a Govt perspective. Can have sunrise clause (ie	Difficult to obtain industry agreement to legislation. Potential trade barrier. Take back mechanism may be expensive to implement.	NEPM (Used Packaging Materials). EU packaging programs.

		effective from a certain date).	Depends on credible enforcement and industry capacity for disassembly and reprocessing.  Needs audit trail, or may encourage illegal landfilling or dumping.	SA container deposit legislation.
Financial sanctions (taxes, levies)	Financial charges on waste or virgin materials. Funds generated may be used to reduce waste and encourage alternatives, reuse and recycling.	Can encourage waste avoidance and help internalise cost of environmental impact of waste. Provides funds to help address problems / pursue opportunities. Raises industry awareness and encourages innovation.	Funds may not be fully hypothecated, may be delays in allocation. Constitutional constraints on excise. May be considered anti-competitive. Waste volumes / weights (basis of levy calculation) are not always proportional to environmental impact.	Waste oil levy. Landfill levies. Product levies.
Tradeable permits	Property rights in resource use / emissions, traded in market.	Drives innovation, new processes. Helps ensure environmental resources put to most valuable use. Permits can be retired (by government or NGOs) to reduce overall emissions / resource use.	Require national scheme for cross-border trade. Requires rigorous audit and enforcement regime to maintain integrity.	Import licences for ozone depleting substances under Ozone Protection Act (Cth). SO <sub>2</sub> emissions trading in USA
Financial incentives (taxation relief, grants, subsidies)	New products, technologies etc developed and introduced which reduce waste and/or improve resource use efficiency.	Encourages and supports innovation. Can generate rapid improvements.	Eligibility criteria often disputed. Tax rebates not effective until end of financial year. Often only a small number of beneficiaries.	Cleaner Production grants and loans schemes Rebates for solar hot water and energy systems

			Need to identify appropriate	Tax incentives for
			source of funds.	R&D.
			May generate isolated	
			improvements rather than	
			broader change.	
			New technology may not be	
			'shared', limiting environmental	
			improvements.	
NEPM	Uniform national framework	Useful for issues that operate or	Requires substantial government	NEPM (Movement
	(may be standards, coregulation,	have impacts over a national	resources to develop and	of Controlled
	legislation etc)	level.	implement.	Waste)
		Ensures coordinated and		
		consistent approach.		