

***EPA Board Waste to Resources
Subcommittee Report***

October 2007

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ISBN 978-1-921125-64-5

October 2007

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1 INTRODUCTION

In May 2007, the Board established a Waste to Resources Subcommittee to consider key issues and strategies for regulating the waste and resource recovery industry (the industry), and required the Subcommittee to report back to the Board at its September 2007 meeting.

The Subcommittee was comprised of Mr Holmes (chair), Ms Dyson, Mr Panigas and Mr Levitzke (Zero Waste SA), and was supported by EPA staff who contributed to the work of the Subcommittee.

The operation of the Subcommittee has been guided by the resolution of the Board of 15 May 2007, and the subsequent adoption of the Terms of Reference by the Board (17 July 2007). Terms of Reference is provided in Attachment 1.

The Subcommittee met on six occasions, with the focus for these meetings guided by a systematic approach to the issues through defining:

- 1 the industry and EPA's current regulatory approach for that industry
- 2 the issues, problems and causes
- 3 possible solutions
- 4 recommendations.

This report proposes strategies to address the main problems and issues in waste regulation.

2 BACKGROUND AND CURRENT APPROACH

2.1 What is the 'waste and resource recovery industry'?

The activities undertaken by the waste and resource recovery industry can be categorised in three ways:

- 1 by the types of material (eg plastics, metals, paper and cardboard, green organics, food waste etc)
- 2 by the generating sources (eg commercial and industrial waste, municipal solid waste (MSW), construction and demolition waste)
- 3 by the activity or functional components involved (eg transport, processing, storage and disposal).

Figure 1 provides a diagrammatic representation of the industry by activity.

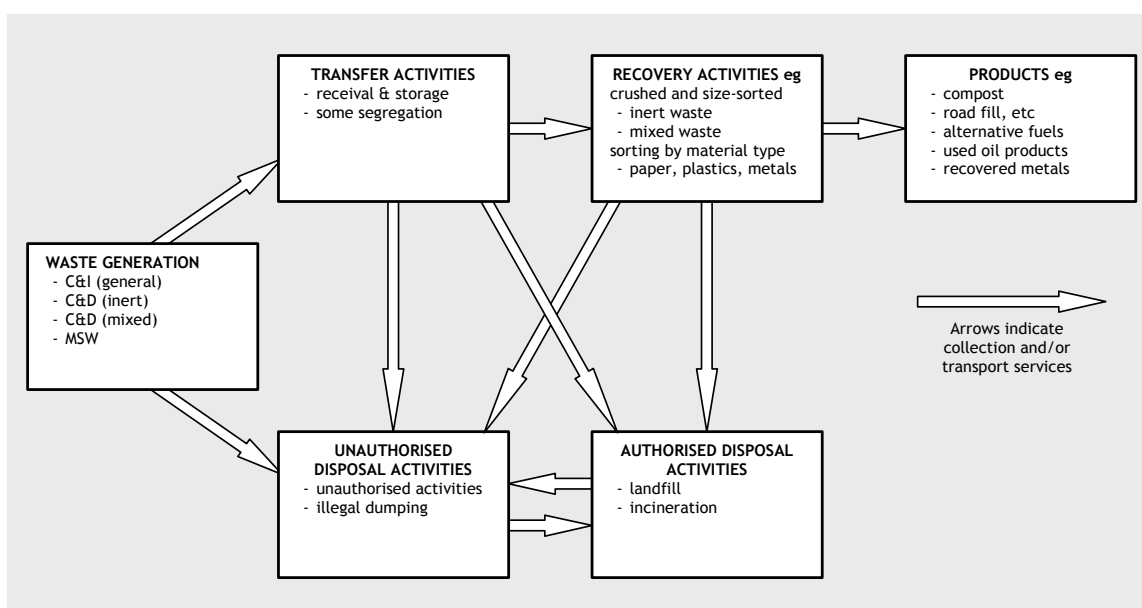


Figure 1 Functional aspects of the industry by activity

2.2 Current approach

The EPA has the role of ensuring that all reasonable and practicable measures are taken to protect the quality of the environment having regard to the principles of ecologically sustainable development.¹

The Environment Protection Act 1993 (the Act) provides the following statutory tools for the EPA to regulate activities that have, or may have, an adverse environmental impact:

- enforcing the general environmental duty,
- implementing Environment Protection Policies (EPPs), which may be accompanied by codes of practice or standards,
- licensing the activities described in Schedule 1,
- giving other environmental authorisations (ie works approvals and exemptions), and
- taking enforcement action against environmental offences (eg causing serious or material environmental harm, or causing an environmental nuisance).

¹ s10 *Environment Protection Act 1993*.

The EPA's regulatory approach for the waste and resource recovery industry relies largely on licensing (clause 3 of Schedule 1 of the Act sets out the activities that are subject to licence requirements) and use of the general environmental duty. The existing EPP for waste² is of very limited scope and is in the process of being replaced by a new EPP (see further in Section 2.4).

Non-statutory guidelines are used to provide information on the EPA's expectations of activities, behaviour and performance. Current regulatory arrangements for the industry are summarised in Table 1.

Table 1 Legislative controls relevant to the industry

Activity	Licensed	Covered by EPP NEPM or regulation	General environmental duty
Waste generation	✓ (part)	-	✓
Collection & transport	✓ (part)	✓ (part)	✓
Processing & recovery	✓ (part)	-	✓
Re-use	-	-	✓
Disposal	✓	-	✓

2.3 Zero Waste SA and South Australia's Waste Strategy 2005–2010

Zero Waste SA's role is to promote waste management practices that, as far as possible, eliminate waste or its consignment to landfill, advance the development of resource recovery and recycling, and to promote an integrated strategy for the State. Zero Waste provides assistance to local councils and industry to improve recycling and diversion of waste from landfill, contributes to the development of waste management infrastructure, and provides policy advice to the Minister regarding waste management in South Australia.

South Australia's Waste Strategy 2005–2010 was prepared by Zero Waste under the *Zero Waste SA Act 2004*. The EPA is obliged to have regard to the strategy in determining the grant and conditions of licences issued by the EPA. The strategy has five key objectives: (1) foster sustainable behaviour; (2) less waste; (3) effective systems; (4) effective policy instruments; and, (5) successful cooperation. It establishes waste reduction goals and targets for South Australia and sets out a range of strategies and steps to achieve these goals and targets. The strategy articulates a number of actions and steps regarding the regulation of waste and its management in SA.

2.4 New Environment Protection (Waste to Resources) Policy

Given the limited scope of the *Environment Protection (Waste Management) Policy 1994* and the continuing development of the industry, it has long been recognised that an improved EPP is required. The EPA has worked in concert with Zero Waste SA to prepare drafting instructions for a new Environment Protection (Waste to Resources) Policy (the proposed EPP) that will provide regulatory underpinning for South Australia's Waste Strategy 2005–2010 and resolve a number of issues faced within the industry. The proposed EPP is currently being drafted by Parliamentary Counsel and is due to be released in draft form for public consultation later this year. It is considered important that any regulatory changes that may arise from this report must be coherent with the new EPP and vice versa.

² *Environment Protection (Waste Management) Policy 1994*

3 ANALYSIS OF KEY ISSUES, PROBLEMS AND CAUSES

3.1 Methodology

Key problems and issues relating to regulation of the waste and resources recovery industry were identified by:

- collating and reviewing comments from Subcommittee members and the agency
- analysing the comments to ascertain the underlying causes of the problems, with a special emphasis on whether the identified problems were believed to require legislative change or whether they could be resolved through administration action.

3.2 The key problem

The Subcommittee determined that the primary problem underlying a range of issues faced by the EPA is that the current regulatory framework has developed in an ad hoc and piecemeal manner. It therefore does not clearly derive from a model that comprehensively, logically and consistently supports:

- 1 minimising risk of environmental harm from waste, related products, and the industry
- 2 maximising the highest and best use of waste as prescribed by the waste hierarchy (eg reuse or recovery)
- 3 appropriate responsiveness to industry changes in the area of recycling and materials re-use and associated technology.

Many of the observations, criticisms and problems considered by the Subcommittee, including a lack of consistent understanding between EPA officers in some instances, were considered to be largely the result of the absence of a clear framework and underlying policy and procedural guidance to support a framework.

In other examples considered by the Subcommittee, the communication of the purpose and process of regulatory decision making did not appear to be widely understood by those outside of the EPA. This appears to have further contributed to perceptions and instances of inaction, inconsistency or inappropriate positions being adopted by the EPA.

The Subcommittee considered that a comprehensive, functional and well-understood framework should drive the approach to the manner of regulation of activities, which should in turn drive the administration of the regulatory regime.

3.3 Other significant problems

Other significant, specific problems were identified as follows.

3.3.1 Waste stockpiling

While the issue of waste stockpiling is recognised as being resolvable through the development and implementation of a comprehensive framework as recommended by this report, the issue is highlighted as it presents an urgent and complex matter for the EPA to resolve. The concerns with waste stockpiling include environmental risks (either presenting an immediate risk of environmental harm on site or off site, or longer-term potential harm by abandonment) and market distortion (through deferral or avoidance of paying the waste levy because of abandonment or disposal by stealth, or avoiding capital costs of constructing sites that meet EPA Standards or industry expectations).

The stockpiling of problematic wastes (eg electronics waste and copper chrome arsenate treated timber) is a specific issue that also needs to be fixed.

3.3.2 Enforcement, unauthorised activities and illegal dumping

Essential to the success of any regulatory framework and to the health of EPA's reputation will be a successful approach to compliance and enforcement. There are several current issues related to this matter, including the level of regulatory effort directed towards activities operating without proper authorisation (smaller perceived low-risk 'transfer stations' are currently being highlighted) and illegal dumping (primarily large-scaling dumping of waste at non-licensed sites). The EPA sets priorities for compliance and enforcement based on environmental risk, but it is clear that market distortion (largely arising from unequal environmental requirements applying to operators) is also highly relevant.

3.3.3 Specifications for products and materials recovered (including use as fuel)

There is insufficient formal guidance for EPA decisions in relation to the development and use of recovered products; specifically, a lack of:

- a) high-level policy guidance to provide consistent, targeted and appropriate responses to new and emerging technologies
- b) appropriate risk-based specifications for the processing and manufacture of products
- c) specifications relating to the quality of secondary materials and products derived from waste, to ensure that environmental risks, both at the processing site and in the end-use of the recovered product, are addressed.

Example 1

Using current technologies, recovered plastic may be re-processed into a variety of products, including: recycled plastic products, incineration for heat, alternative fuel production (eg in cement kilns), alternative diesel production (thermofuel), 'bio-char' soil treatment products derived by pyrolysis, electricity generation, industrial processing (eg carbon content in steel), and composting (eg biodegradable plastics). Not all technologies are being proposed in SA at this time but there is a lack of high-level policy guidance to assist in determining appropriate approaches to such proposals and whether one can be preferred to another.

Example 2

Matters of current interest needing clearer, complete specifications include proposals to process mixed wastes to produce:

- fill material for use in infrastructure developments
- alternative fuel for industrial use(as currently used in a cement kiln)
- soil conditioners to be spread on land.

4 RECOMMENDED RESPONSE

The Subcommittee discussed a range of possible solutions. The key elements of the recommended response are:

- Develop a comprehensive, functional and well-understood framework for regulating the activities associated with the waste and resources recovery industry using an activity and risk-based approach.
- Embark on an implementation program involving:
 - amending Schedule 1 of the Act (description of licensed activities) in a way that is consistent with the framework
 - reviewing and updating the proposed EPP for consistency with the framework
 - undertaking a range of administrative actions to support implementation of the framework and resolve outstanding problems.

The framework, approach and implementation are addressed in Sections 4.1–4.4.

4.1 A comprehensive, functional framework

The Subcommittee considered the EPA's objectives for managing waste and activities relating to waste and resource recovery, and concluded that those objectives are:

- 1 to minimise the risk of environmental harm occurring
- 2 to support the highest and best, safe available use of secondary materials in accordance with the waste management hierarchy.

The objectives derive from the provisions of the Act.³

The Subcommittee considered various models for a comprehensive and functional framework for determining when and how to regulate the management of waste and resource recovery in accordance with these objectives. Consideration revolved around what sorts of activities the EPA should regulate, and how it should determine which of its tools (ranging from the general environmental duty, to EPP or Code of Practice, to individual licensing of activities), is appropriate for different activities.

The Subcommittee concluded that the recommended framework is that the waste and resource recovery industry is to be:

- comprehensively regulated; is to be regulated on the basis of the activity or functional components involved (eg transport, processing, storage and disposal)
- regulated using appropriate tools, as guided by a set of regulatory principles.

³ The objects in Section 10(1)(b) state the EPA's purpose is:

to ensure that all reasonable and practicable measures are taken to protect, restore and enhance the quality of the environment having regard to the principles of ecologically sustainable development

and 'to prevent, reduce, minimise and, where practicable, eliminate harm to the environment' including by:

- ... regulating, in an integrated, systematic and cost-effective manner–
 - activities, products, substances and services that, through pollution or production of waste, cause environmental harm; and
 - the generation, storage, transportation, treatment and disposal of waste.

The EPA is obliged to have regard to South Australia's Waste Strategy 2005–2010 when considering licence and development applications, ss 47(1)(ea) and 57.

4.2 Applying the framework

The recommended approach to applying the framework is to:

- describe the activities taking place within the waste and resource recovery industry. These are outlined in Table 2
- analyse each activity and apply an appropriate tool to the regulation of that activity, on the basis of the regulatory principles, a key aspect of which is the risk presented by the activity. Table 2 illustrates the available tools, from lowest level of control to highest.

All activities associated with the waste and resource recovery industry should be analysed according to this approach.

The Subcommittee identified appropriate regulatory principles for the required analysis (see Attachment 2). The fundamental principles to consider in determining whether an activity type warrants licensing (rather than the use of other regulatory tools) are:

- the risks of environmental harm (likelihood and consequences) associated with the activity type (including the stockpiling or sale of products); and
- the level of complexity or specificity of management requirements for the activity to avoid unacceptable impacts and/or to support sustainable development.

The higher the risks or the complexity of management involved, the stronger the need for licensing of an activity. For some activity types, different regulatory tools may be used depending on the threshold of the activity, or the particular material types that are the subject of the activity. For example, different waste streams present different levels of risk, eg clean or inert, versus mixed wastes or where contamination with hazardous materials is likely.

Table 2 An activity-based framework to support analysis of the appropriate regulatory tool(s)

DESCRIPTION OF ACTIVITY—INVOLVING SECONDARY MATERIALS RECOVERY & DISPOSAL, AND SPECIFIC WASTES (EG HAZARDOUS)	GENERAL DUTY ONLY	EPP, CODE OR STANDARD	STANDARD LICENCE	SPECIFIC LICENCES		
				Tier 1	Tier 2	Tier 3
1 Collection & transport						
2 Transfer & sorting for transfer						
2(a) Stockpiling						
3 Processing and treatment activities include: ⁴ 3(a) Sorting 3(b) Grinding and shredding 3(c) Stockpiling 3(d) Products						
4 Re-use						
5 Disposal						

⁴ Other activities involved in processing and treatment may emerge during the analysis.

Implementation of the comprehensive, functional framework according to the recommended approach will entail two areas of change:

- 1 legislative changes (refer Section 4.3)
- 2 administrative action (refer Section 4.4).

4.3 Implementing the framework—legislative changes

4.3.1 Schedule 1

To apply the recommended approach, changes will be needed to be made to the way the legislation describes the activities that are subject to licence. This will require review of Schedule 1 of the Act.

The review of the Schedule will focus on ensuring that the type of activities required to be licensed, and the way that activities are described, reflect the outcomes of the analysis illustrated in Figure 2.

The Subcommittee identified two options for describing the activities to be licensed:

- 1 by describing activity types by references to ‘waste’ (eg waste disposal, the conduct of works for the storage, sorting, etc of waste, the treatment or processing of waste, or the production of secondary materials or products from waste); or
- 2 by describing activity types without the need for the material the subject of the activity to fall within the definition of ‘waste’ (eg processing of material received from specified sources or activities, production of secondary materials).

These options were the subject of extensive discussion by the Subcommittee and supporting officers. It was recognised that each option held certain advantages and disadvantages.

If regulation of the industry was commencing in the absence of a history of controls over waste and secondary materials and interaction with other legislation (ie a ‘greenfields’ scenario), the Subcommittee considered that Option 2 may have been preferable. That option avoids the distinction between waste and other materials on any grounds other than the risk posed by the substances involved.

However, recognising the scope of the long-standing, existing regulatory system for the industry and the understanding of that system and language within industry and the EPA, the Subcommittee has determined that it is appropriate for Option 1 to be adopted. Option 1 provides for a clarification and enhancement of the current system.

The Subcommittee has also determined that it is paramount the EPA should be able to regulate relevant waste and resource recovery activities (including certain recovered products) **without** its ability to do so being dependent on the material concerned being classified a ‘waste’ within the meaning of the Act. An additional section or wording will need to be attached to the definition of ‘waste’ to facilitate this approach.

Note

The regulation of activity under Schedule 1, clause 3(3) of the Act relies entirely upon the material which is the subject of the activity falling within the statutory definition of ‘waste’. Certain activities thus require a licence even though the material involved poses very low risk. However, if a material is no longer a ‘waste’ then the activity relating to that material may no longer be subject to regulation by licensing even though it may still pose environmental risks or otherwise remain of such interest to the EPA that its control is warranted by continued licensing. Although the EPA’s interpretation of what is waste has proved to be successful in the eyes of the court, recent EPA court cases on waste have raised a few potential gaps in the required regulatory framework.

4.3.2 The proposed EPP

The proposed EPP has been designed to provide regulatory underpinning for South Australia's Waste Strategy 2005–2010. It will include detailed objects specific to the management of waste and resource recovery that will complement the EPA objectives as they are articulated in Section 4.1 of this paper. The proposed EPP will assist with particular key problems faced in regulating the waste and resource recovery industry such as stockpiling, illegal dumping and transparent, consistent regulatory standards.

The proposed EPP will need to be reviewed to ensure that it is entirely consistent with the recommended framework and with the changes proposed to Schedule 1.

4.4 Implementing the framework—administrative action

An important part of establishing and implementing a comprehensive, functional framework is ensuring that it is well-understood by the EPA and industry and administered effectively. A number of the problems and issues considered by the Subcommittee appeared to have been compounded by administrative aspects of the current approach.

Improving understanding of the framework, principles and processes for decision-making will substantially address concerns of consistency, transparency and appropriateness of regulatory decisions.

Administrative actions identified as necessary by the Subcommittee are:

1 Articulating and consulting with industry regarding the comprehensive, functional framework.

Targeted discussions on the approach under the framework will occur from an early stage with key stakeholders to aid a sense of ownership and understanding. Support for the framework and the changes that will be implemented under it will allow the further development of productive relationships between industry and the EPA.

2 Developing a user-friendly document that clearly articulates EPA regulatory arrangements applying to the waste and resource recovery industry.

A well-written document will clearly explain the regulatory framework and approach. Amongst other things, the document will:

- define how and when the EPA will regulate the industry, and identify the tools available for regulation and the implications of the tools
- clearly outline the decision-making processes for EPA regulation
- incorporate or reference the range of existing guidance materials that provide certainty and clarity to the industry regarding certain environmental specifications (with a particular focus on resource recovery operations)
- be kept under review and updated as necessary to clarify the EPA's position on emerging and problematic issues.

3 Completing the review of the compliance and enforcement guidelines.

The guidelines document provides direction on the use of the compliance and enforcement provisions of the Act and its currency and suitability needs to be maintained. The approaches established within the guidelines can help steer responses to specific matters, such as responses to unauthorised, small-scale activities in the industry. It assists industry and community groups to understand EPA responses to compliance and enforcement issues.

5 PROCESS FOR IMPLEMENTING THE RECOMMENDED RESPONSE

5.1 Implementation plan

The agency has developed an implementation plan for the comprehensive, functional framework that includes provision for the achievement of the legislative changes, other policy components (using identification of specific, necessary elements to support the administrative actions required under Section 4.4), and communication and engagement aspects. The plan is supported by the Subcommittee. The Subcommittee recommends that the Board receive quarterly performance reports on the implementation of the framework until completion of all elements. Attachment 3 details the implementation plan.

5.2 Consultation

In accordance with the resolution of the Board, the Subcommittee considered the scope and nature of consultation regarding the proposed framework. As identified in Section 4.4, it determined that consultation with key stakeholders should occur from an early stage to facilitate understanding and support for the framework.

Communication and engagement on the framework and its implementation will be designed to support and enhance relationships with industry and other relevant organisations (eg Zero Waste SA).

5.3 Resources

Although some resources are available for implementation, the outcomes of the Subcommittee's work will require further dedicated resources to ensure the reform project maintains momentum. The issue of additional resources will be raised in the mid-term review of the EPA budget.

ATTACHMENT 1 EPA BOARD SUBCOMMITTEE ON WASTE TO RESOURCES TERMS OF REFERENCE (TOR)

1 Establishment of the EPA Board Waste to Resources Subcommittee (The Subcommittee)

- 1.1 The Subcommittee is established under Section 17(1) of the Environment Protection Act 1993.
- 1.2 The Subcommittee is accountable to, and reports to, the EPA Board.

2 Objectives of the Subcommittee

The Subcommittee will:

- 2.1 Recommend to the Board an appropriate model for the control of the environmental impacts of waste in the context of the State Waste Strategy.
- 2.2 Advise the Board on strategies and other requirements for implementing the model.

3 Functions of the Subcommittee

In developing recommendations and advice, the Subcommittee will:

- 3.1 Explore and articulate the EPA goal for regulating waste, within the State policy framework of increasing recycling and resource recovery.
- 3.2 Identify the key issues for regulating waste—when to regulate, and how to regulate. This task will include articulating and assessing the effectiveness of the current arrangements.
- 3.3 Identify possible strategies to deal with the issues in a way that will achieve the identified goal. These may include:
 - (a) changing the model for *when to* regulate, or
 - (b) changing the model for *how to* regulate. (This will include consideration of the mix of tools used and the way the tools are used, and of whether improved regulation could be achieved through the development or improvement of EPA policies and guidelines; or amendments to the current definition of waste under the Environment Protection Act, or the use of the waste levy, including how it could be changed to improve resource recovery and improve compliance.
- 3.4 Identify any other relevant matters, including:
 - (a) a Board position on waste to energy and where it fits in relation to resource recovery and recycling
 - (b) possible consultation and public submissions in relation to the model and strategies proposed
 - (c) what will be required to ensure successful implementation of the model and strategies
 - (d) whether changes are needed to the EPA Strategic Plan and Corporate Operational Plan.

3.5 Consider the potential for regional waste plans.

3.6 Provide advice to the Board on the above issues at its September 2007 meeting.

4 Referral of Issues

4.1 The Subcommittee will consider any other matters referred to it by the EPA Board.

5 Membership of the Subcommittee

5.1 Subcommittee members are:

- Allan Holmes (Chair)
- Megan Dyson
- Greg Panigas
- Vaughan Levitzke (co-opted by Subcommittee 18 June meeting)

5.2 Where a Subcommittee member is unable to attend a meeting a designated deputy may attend on their behalf.

5.3 The term of office is three months or as resolved by the Board.

6 Authority to Act

6.1 The Subcommittee is established as a statutory advisory body only. It does not have any delegated power to act on behalf of, or to commit, the EPA to any actions.

7 Conditions of Membership

7.1 No sitting fees will be allocated to members of the Subcommittee, however out of pocket expenses will be reimbursed.

8 Meeting Proceedings and Reporting

8.1 Meeting schedules and other logistical issues to be determined by the Subcommittee.

8.2 Reports, agendas and minutes will be provided by EPA executive support through the Board Secretariat.

8.3 Reports on the Subcommittee's activities will be provided in writing to the Board.

8.4 Meetings will be held in private unless a person, or persons, has been invited by the Subcommittee to attend.

9 Changes to Terms of Reference

9.1 Changes to the TOR for the Subcommittee must be agreed by the EPA Board.

10 Dissolution

10.1 The Subcommittee will cease as resolved by the EPA Board.

ATTACHMENT 2 REGULATORY PRINCIPLES

Regulatory principles

A document to assist in determining whether an activity that has the potential to cause environmental harm should be regulated using licensing or other mechanisms under the *Environment Protection Act 1993* (the Act).

Regulation of activities

Under Section 10, the purpose of the Act is,

to ensure that all reasonable and practicable measures are taken to protect, restore and enhance the quality of the environment having regard to the principles of ecologically sustainable development,⁵

and 'to prevent, reduce, minimise and, where practicable, eliminate harm to the environment' including by:

- ... regulating, in an integrated, systematic and cost-effective manner-
- activities, products, substances and services that, through pollution or production of waste, cause environmental harm; and
- the generation, storage, transportation, treatment and disposal of waste.⁶

The Act provides for the regulation of activities that may cause environmental harm in various ways. The key regulatory options may be summarised as follows:

When to regulate

The EPA may regulate the following activities before any unacceptable environmental harm occurs, ie using a proactive approach:

- (a) Specific activities of environmental significance as described in Schedule 1; and
- (b) Other specified activities that EPA wishes to regulate.

Otherwise, activities may simply be regulated when they pollute, or might pollute, the environment in breach of the general environmental duty, ie using a reactive approach.

How to regulate

- (a) Activities of environmental significance (Schedule 1) are regulated by licence.
- (b) Other specified activities may be regulated through an EPP or associated Codes of Practice.
- (c) Activities that breach the general environmental duty may be regulated through enforcement of the general environmental duty.

Any activity that causes environmental harm by polluting the environment in contravention of the requirements of a licence, EPP or the general environmental duty may also be subject to the offences or civil enforcement powers within the Act.

⁵ s10(1)(b).

⁶ s10(1)(b)(i)(B).

Notable features of regulatory mechanisms

Licensing

Licensing allows tailored site, industry and environmentally specific regulatory requirements to be applied to activities that pose risks to the environment. Monitoring and reporting of activities can be required. Activities can be required to be undertaken in a specific manner or to achieve a specific outcome. Undertaking an activity that requires a licence without a licence is an offence. Undertaking an activity in contravention with a condition of licence is an offence. Enforcement of breaches may be pursued using orders, court orders or prosecution.

Licence fees help fund the consideration of effective management approaches for activities that have the potential to cause environmental harm and the inspection of such activities.

EPPS and Codes of Practice

An EPP or Code of Practice may prescribe required behaviours and/or reporting across an activity type to prevent or minimise the potential for environmental harm. EPPs may contain specific offences. Enforcement of breaches of an EPP or Code of Practice referenced appropriately in an EPP may be pursued using orders, court orders or prosecution. No regular fees are collected from activities regulated in this manner.

General Environmental Duty

Breach of the general environmental duty by an activity does not constitute an offence under the Act. The breach may be enforced through the use of orders under the Act. The activity must be one that pollutes or might pollute the environment. No fees are collected from activities regulated in this manner.

Relevant principles

The fundamental principles underpinning whether an activity type warrants regulation through licensing, regulation through an EPP and Code of Practice, or the general environmental duty are:

- the risks of environmental harm (likelihood and consequences) associated with the activity type
- the level of complexity or specificity of management requirements for the activity to avoid unacceptable harm and/or to support sustainable development.

Environmental harm is defined by the Act as any harm, or potential harm, to the environment (of whatever degree or duration), and includes an environmental nuisance or anything declared by regulation or an EPP to constitute harm.⁷

Harm to the environment may include: harm to human health; harm to water, air, soil, plants or animals; environmental nuisance (eg through noise or odours) interfering with the lawful enjoyment of an area; or, unsightly or offensive conditions.

The higher the risks of environmental harm (likelihood or consequences) or the level of complexity or specificity of management requirements involved in preventing potential harm or achieving sustainable development, the stronger the need for licensing of an activity.

Use of an EPP or Code of Practice, without additional licensing, to regulate an activity is best suited to where the requirements for effectively preventing potential harm or achieving sustainable development from the activity are largely uniform.

Where risks of occurrence or the consequences of potential environmental harm are very low, reliance on the general environmental duty only may be appropriate.

⁷ s5(1).

Further relevant principles in determining whether an activity should be licensed are:

- the need to act in accordance with the polluter-pays principle as enshrined in the Act, by avoiding any inappropriate transfer of responsibility and costs from polluters to the general community. Recovery of costs through licence fees in relation to the activity type to support the required regulatory effort (eg frequency of inspection and development of standards for operations, products, etc) can be considered consistently with this principle; and
- the need to protect and ensure the continued functionality, consistency and equity of the licensing system and the effective administration of the Act (eg number of licences, relationship of activity to other activities that may cause environmental harm, and the likely impacts of control of that activity on the ability to successfully regulate other activities).

Relevant criteria for determining environmental risks

The criteria to be into account undertaking a risk analysis (likelihood/consequences of environmental harm) associated with an activity and hence assisting in identification of the appropriate regulatory option(s) are:

- typical nature and quantity of emissions (eg toxicity, persistence, noise, odour)
- typical effects on flora, fauna or humans
- typical complexity of equipment/processes
- degree of variability of operations within an industry activity type
- level of confidence in technology or processes typically employed in the industry
- risk of illegal operation or avoidance of costs (to provide for a level playing field and standards of operation)
- public confidence in regulation of the activity.

ATTACHMENT 3 IMPLEMENTATION PLAN

ID	Task Name	Work	Division	2008												2009							
				S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A
1 Legislative components																							
2	# Review and amend waste and resource recovery activities in S1 (Changes to improve interpretability, ensure capture of resource recovery operations and limited purposes, and also consider whether there is a need to alter any part of the waste definition)	52 weeks	PPC																				
3	Continue with development of Waste EPP	-	PPC																				
4 Broader policy components																							
5	# Define the decision making process for EPA regulation of the waste industry (specifying the objectives for waste management, the legislative arrangements and licensing principles)	8 weeks	RCD/PPC																				
6	# Develop the principles and process for determining product standards for refuse-derived fuel, fill and land application products - (Define the approach that will be consistently used in each case)	6 weeks	RCD																				
7	# Develop a state based policy for refuse-derived fuel	24 weeks	ZWSA/EPA																				
8	# Develop policy position and specific standards (product and operation) for waste-derived fill	24 weeks	RCD/SAS																				
9	# Develop specific standards for the storage of waste material (addressing concerns of waste stockpiling)	4 weeks	RCD																				
10	Finalise the internal guidance for making determinations relating to the limited purposes provisions	6 weeks	RCD																				
11	Complete the major review of the compliance and enforcement guidelines	-	RCD																				
12 Communication and engagement components																							
13	# Undertake targetted consultation with the industry (Including progress to date with the work of the Subcommittee, highlighting the key implementation actions that will occur, and the guiding principles being adopted)	2 weeks	RCD																				
14	# Develop the publication materials - (Information products, in user-friendly format, for industry to describe the legislative, policy and regulatory approaches of the EPA to the waste industry and specific resource recovery operations)	4 weeks	RCD																				
15	# Develop communication and engagement strategy for the waste industry - (including how the industry should be engaged in development of standards, as well as approach for communicating developed material regarding regulatory approaches of the EPA)	2 weeks	RCD/PPC																				
16	# Deliver an ongoing communication and engagement program on developed publication material - (Particularly the developed legislative, policy and regulatory approaches)	6 weeks	RCD																				
17 Other activities																							
18	Finalise a strategy for EPA's response to unauthorised activities with an initial focus on the W'ingfield precinct	2 weeks	RCD																				

- Legend**
- The calendar durations (Gantt chart) illustrate the time span over which the work will occur.
 - The 'Work' column defines the actual time required to undertake the task (FTE).
 - The grey task bars indicate those tasks that are external to the implementation project (being delivered through a separate project).
 - Projects where resources have not yet been allocated are marked with #.