

**HAZARDOUS/INDUSTRIAL WASTE PRECINCT
COORDINATING GROUP**

Discussion Paper

On

A Precinct Management Model

May 2006

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1 SUMMARY

The Hazardous/Industrial Waste Precinct Coordinating Group (HIWPCG) has prepared this discussion paper on the regulatory environment and potential establishment process for waste treatment precincts for broader stakeholder comment.

This paper sets out the broad process and requirements for the establishment and operation of hazardous and industrial waste precincts as set out by government policy and guided by recommendations from the 3C. It identifies:

- the objectives of any legislative mechanisms that could be used to address any gaps that may be present between the existing regulatory framework and that required to give effect to the draft 3C definition of hazardous waste and the associated decision tree.
- The likely steps that would be required to allow for any precincts to be developed.
- The state and national processes and standards that will be met in developing these precincts.

2 BACKGROUND

Following the Bellevue waste treatment facility fire in 2001 the 3C was established as an initiative of the Government and the Waste Management Board as part of the “partnering for Waste Priorities” program. The key objective of the committee was to develop technology and selection criteria for hazardous waste precincts and produce a shortlist of suitable sites. With the closure of the Brookdale waste treatment facility in 2003 significant pressure was imposed on the remaining treatment sites in particular those in Kalgoorlie and Kwinana resulting in considerable community dissatisfaction with current waste treatment practice. This was particularly the case in Kalgoorlie.

In parallel to this, the HIWPCG was established to bring together all the government departments with a stake in managing hazardous waste in the state. The objectives of the HIWPCG was to ensure that these agencies were informed of the activities of the 3C, provide input into the process and be prepared for the recommendations coming from the 3C process.

The HIWPCG has sought to analyse and identify the requirements within legislation to enable the establishment of hazardous precincts and also develop a management model for any precincts should they be established.

The HIWPCG has also commissioned an extensive study by GHD into the current status of the waste industry in WA. GHD were requested to identify technologies available for the treatment of these wastes and provide some economic evaluation of adopting the revised hazardous waste management framework in accordance with 3C recommendations. The GHD study does not, however, form part of this discussion paper.

This discussion paper comes in two parts:

- Part one is an outline of a management model proposed for the management and regulation of the operations of a precinct; and
- Part two is the Draft 3C Decision Tree.

The Draft 3C Decision Tree identifies the appropriate treatment and disposal options for hazardous wastes produced in WA. It recognises WA's existing waste management regulations and has been modelled with reference to the requirements of the European Catalogue on wastes.

PART ONE - PRECINCT MANAGEMENT MODEL

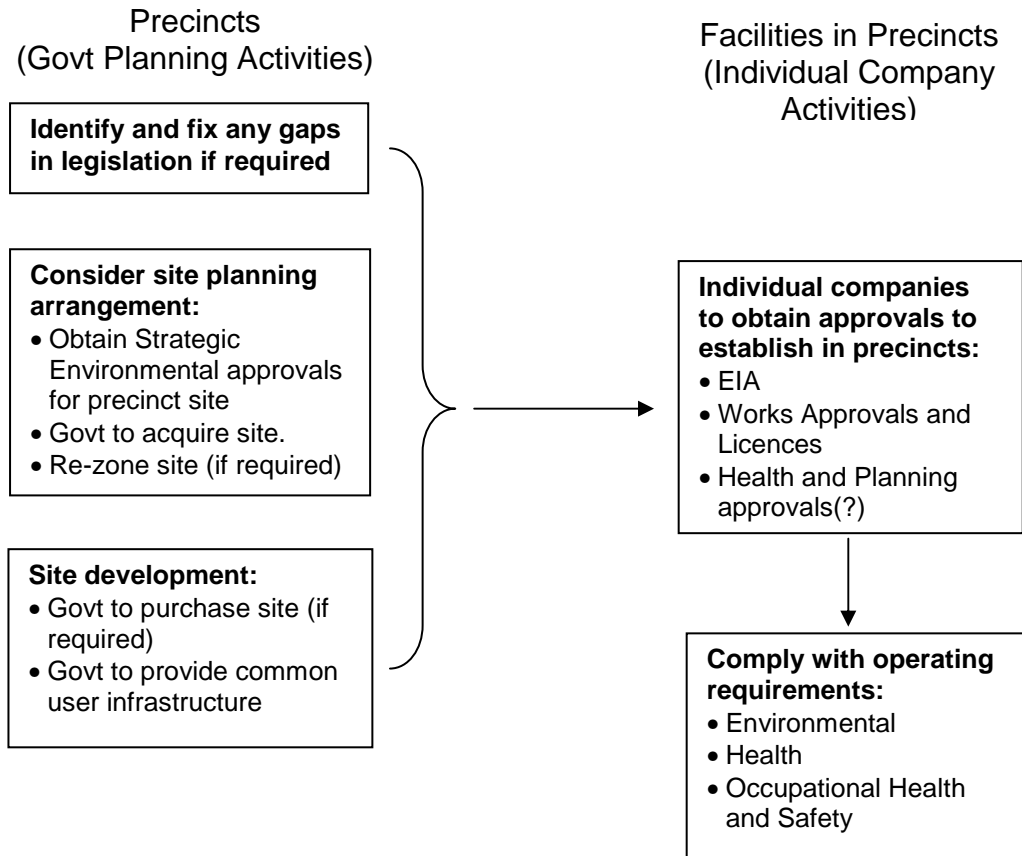


Figure 1: Components of Precinct Regulatory Model

3 THE OBJECTIVES OF LEGISLATION

The HIWPCG has identified a number of objectives relating to any legislative mechanisms that could be used to establish precincts and give effect to the 3C's definition of hazardous waste and their associated decision tree. There are a number of options available to government to achieve these objectives, including:

- amendment to existing legislation
- creation of new legislation, or
- a combination of the above.

The objectives are:

1. Allow for the creation of designated precincts and buffer zones and ensure these are protected in the long term.

2. Allow for a process to create further precincts for hazardous wastes in the future.
3. Describe the process to define hazardous waste.
4. Allow for the creation of mechanisms that enforce and administer the treatment of these hazardous wastes in precincts. This is to be based on the 3C Decision Tree model.
5. Allow for a process to identify hazardous waste treatments that are unacceptable for precincts.
6. Allow for the creation of a mechanism to grant exemptions to the need to treat a waste in a precinct (under regulation).
7. Prohibit treatment of hazardous wastes in all areas of Western Australia except those defined under the 3C decision tree.
8. Provide the Ministerial powers to set timeframes for existing treatment companies to comply with the above.

4 SITE PLANNING CONSIDERATIONS

Prior to the establishment of a precinct and before a company can commence operations in a precinct, an Environmental Impact Assessment would be required for the site under the existing *Environmental Protection Act 1986*. It is intended that the assessment and approval process for the establishment of the precinct would be undertaken by LandCorp on behalf of the State Government.

This section outlines the activities that would be required prior to the establishment of the precinct or a proponent seeking an individual approval to develop a facility in a precinct. These include:

- Obtaining over arching environmental approvals (if they don't already exist)
- Acquiring/purchasing the site; and
- Rezoning the land if required.

4.1 Environmental Assessment

Any proposal to develop a precinct on a specific site would be referred to the Environmental Protection Authority (EPA) to determine the level of assessment required to both determine the suitability of the site as a precinct and establish the specific environmental management requirements for that site. This would be carried out under Part IV of the Environmental Protection Act 1986.

The EPA's consideration of whether to formally assess any of the sites would be determined in accordance with the Authorities guidelines and procedures.

4.2 Site Acquisition Model

Cabinet requested that ownership and management of the land should remain within government. It is anticipated that the management and administration of precincts will be undertaken by LandCorp.

The nominated sites are to be purchased by the State Government if it does not already own it. If the land is already vested with Government, then the title is to be transferred to LandCorp.

Areas within the precinct are to be leased out to waste treaters on long-term leases with enforceable conditions to ensure ongoing compliance. Conditions of lease will be consistent with those established by LandCorp on other similar managed industrial sites.

Establishment and regulation of precinct titles will come under the Land Administration Act 1997 and Land Administration Regulations 1998.

4.3 Zoning

Amendments to legislation may be required to provide the head powers to establish the precincts and ensure ongoing protection of the precincts and their buffers. Options include:

- New legislation or amendments to existing legislation will be used to establish and protect the precincts and their buffers.
- Planning Schemes will be amended to incorporate the precincts and their buffers.

5 ESTABLISHING PRECINCTS AND FACILITIES

It is intended that the construction of infrastructure and services to a precinct would be undertaken by Land Corp on behalf of the State Government.

5.1 Construction

Where more than one company is located within a precinct, it is likely that some common user infrastructure will be required. These could include

- Installation of sewer connections or construction of evaporation ponds
- Black and grey water management
- Stormwater management
- Fire and wash water containment areas

5.2 Provision of Services

Land Corp would provide some or all of the following depending on the size and complexity of treatment facilities that establish in the precinct.

- Reticulation of Utilities within the precincts including
 - Electricity
 - Gas
 - Water
 - Sewer
 - Roads (into and within)
 - Telecommunications

6 PRECINCT OPERATION AND MANAGEMENT

6.1 *Planning and Structure (Tenure)*

Planning for each of the precincts is to be undertaken by Land Corp in consultation with government, industry and the local Community Precinct Working Committee

Overall structure and layout of the precinct will be managed by Land Corp.

Continuing ownership of leases will be conditional on the operator meeting the operating standards and conditions applied by Regulation, Licences and Ministerial Conditions.

6.2 *Operating Guidelines*

Operating Guidelines for Hazardous Waste Treatment Precincts in Western Australia will be prepared by the DoE in consultation with industry, state and local government and community stakeholders. These will supplement regulatory controls imposed by the DoE and other agencies under existing powers. Each operation will be expected to develop and implement management plans to address health, safety, environment and quality issues. Where they exist, appropriate State, National and International Standards and Industry codes of practice will be adopted and followed.

6.3 *Regulation*

Each facility seeking to establish in a precinct will be required to comply with existing national and state health, safety and environmental legislation.

6.3.1 Health Aspects;

- Meet the requirements of the *Health Act 1911* and the *Occupational Safety and Health Act 1984* and relevant regulations

- Obtain licenses and approvals to use listed chemicals and poisons
- Ensure programs are in place to monitor and manage the health of staff.
- Development and implementation of relevant monitoring programs.
- Auditing and reporting on all health aspects as required.

6.3.2 Safety Aspects;

- Meet the requirements of the *Occupational Safety and Health Act 1984* and the *Occupational Safety and Health Regulations 1996*
- Meet the requirements of the *Dangerous Goods Safety Act 2004*, the *Dangerous Goods (Transport) Act 1992* and the relevant Dangerous Goods Regulations.
- Development and implementation of relevant monitoring programs.
- Auditing and reporting on all occupational health and safety aspects as required.

6.3.3 Environmental Aspects;

- Meet the requirements of the *Environmental Protection Act 1986* and relevant Environmental Protection Regulations.
- Meet the requirements of the *Dangerous Goods Safety Act 2004*, the *Dangerous Goods (Transport) Act 1992* and the relevant Dangerous Goods Regulations.
- Environmental Impact Assessment under Part IV of the *Environmental Protection Act 1986*. This means an orderly and systematic evaluation of a proposal including its alternatives and its effect on the environment including the mitigation and management of those effects. The process extends from the initial concept of the proposal through implementation to commissioning and operation and, where appropriate, decommissioning. This process could result in a Ministerial Statement specifying the conditions under which the project could operate.
- Works Approval and Licensing under Part V of the EP Act 1986 and relevant Environmental Protection Regulations. This process will establish the conditions under which the proposals will be constructed and operated. Works approval defines the standards to be met during construction. Licence conditions may set operating standards, emission limits, monitoring and reporting conditions for the prevention, control, abatement or mitigation of pollution or environmental harm to be met during operation.
- Operators should undertake regular self-auditing and public reporting, the details of which will be specified in their management systems and operating conditions. This may be supported and verified by a program of independent audits as specified under the relevant ISO standards.
- Relevant Government Departments will conduct inspections and performance reviews. Inspection reports will be public documents.

7 CLOSURE PLANNING

Closure of either a facility within a precinct or closure of the precinct itself should be an integral part of the overall management program for the precinct. This will also be an element considered by the EPA in its assessment of the precinct or facility proposal. Government and industry will each have a role to play in planning for this aspect;

Government

- Government to develop a closure plan for each precinct (or a generic one for all precincts).
- Land Corp to ensure that it is periodically updated and implemented at the time of closure.

Individual Business Plans

- Each business to have a closure plan for decommissioning their own facilities (Bridle 2005).
- Periodic updates should be carried out to reflect changes to operations, standards and costings.
- Sufficient funds need to be allocated to closure.

Part 2

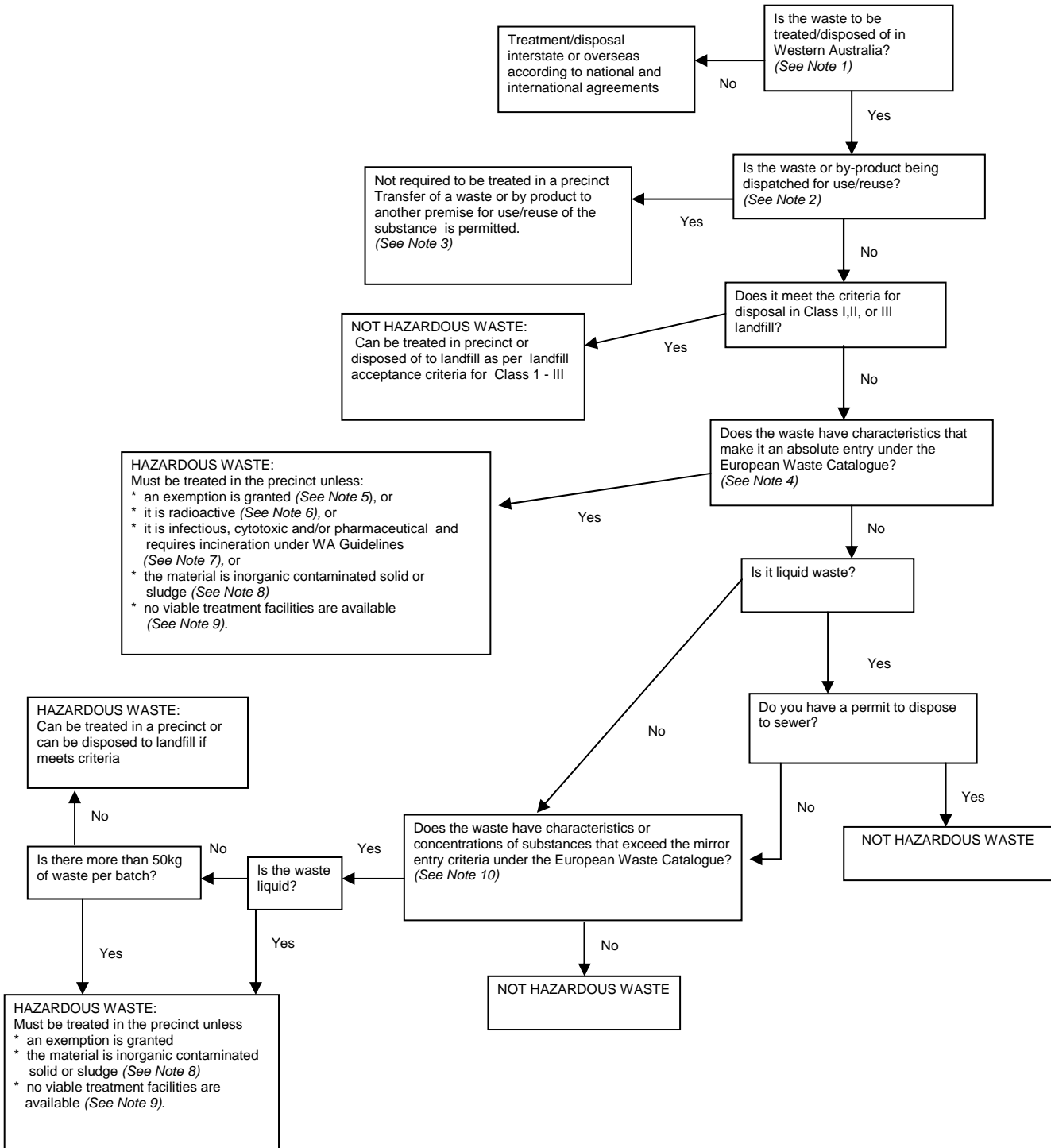
DRAFT Decision Tree for Waste Treatment Options in Western Australia

Prepared by the

**Core Consultative Committee on
Waste Management (3C)**

Draft Decision Tree for Waste Treatment Options in Western Australia

Version 19B



Notes: Draft Decision Tree for Waste Treatment Options in Waste Western Australia

Conditional on Generators On-Site Treatment of Wastes being allowed

Treatment of hazardous waste can occur on a generator's site, as approved under the requirements of Part IV and Part V of the Environmental Protection Act. Sites operated exclusively for or by the generator at the time of generation (eg, under contract), for the purposes of the generator's business, can be considered to be the generator's site.

Note 1: Western Australian waste should be treated in Western Australia where viable treatment and disposal options can be provided.

Note 2: Use/reuse applies to substances generated as a waste or by-product at one premises that are then transferred to another premises for use in the process at the second premises. Substances shall not be stockpiled prior to use/reuse for a period longer, or in a volume greater than that stipulated by the regulator (this will vary according to the material type).

Note 3: Wastes or by-products that are being used/reused in a second process with minimal treatment do not have to be sent to the precinct. Treatment of waste or by-product (ie, cleaning, scrubbing, separating) to make it suitable for use/reuse is permitted at either premises.

Note 4: The European Waste Catalogue classifies certain waste streams (absolute entries) as hazardous – these wastes must be treated in the precinct unless they have an exemption, are radioactive, infectious, cytotoxic or pharmaceutical wastes, are inorganic contaminated solids or sludges or no viable treatment facilities are available at the nearest precinct.

Note 5: Exemptions from treatment in precinct can be obtained from/by*process for exemptions to be identified – 3C to recommend that the exemption process be drafted by DoE for consideration by the DoE Stakeholder Reference Group with recommendations to the 3C.*

Note 6: Dangerous Goods Class 7 wastes (low level radioactive) are disposed of in the Class V Mt Walton Intractable Waste Landfill facility.

Note 7: Some of the Dangerous Goods Class 6 wastes (cytotoxic and pharmaceutical wastes) are disposed of by incineration under WA guidelines.

Note 8: Inorganic contaminated sludges can be disposed of to landfill according to landfill acceptance criteria if no viable treatment options are available .

Note 9: There is a strong preference for all hazardous wastes to be treated in precincts. However, for some wastes no viable treatment options will exist and these materials may be disposed to landfill as per the landfill acceptance criteria.

Note 10: The European Waste Catalogue mirror entries are those wastes which contain substances above threshold levels that classify them as hazardous or have characteristics that classify them as hazardous. Wastes that exceed mirror entry criteria must be treated in the precinct unless an exemption is granted, it is inorganic contaminated solid or sludge, no viable treatment facilities are available or the total mass of the waste per batch is less than 50kg.