

CONSULTATION SESSION: SITE ASSESSMENT CRITERIA FOR WASTE FACILITIES



BACKGROUND

The *Western Australian Waste Strategy: "Creating the Right Environment"* was released by the Waste Authority in March 2012. The Strategy aims to engage the Western Australian community over the next decade in moving to a low-waste society by providing the required knowledge, infrastructure and incentives to change behaviour.

In the Waste Strategy, among other major initiatives, the Waste Authority committed to developing a **Waste and Recycling Infrastructure Plan for the Perth Metropolitan and Peel Region**. A Strategic Waste Infrastructure Planning Working Group has been set up to assist with the development of the Plan. The aim of the Plan is to determine the waste management infrastructure required to meet the needs of the Perth and Peel '3.5 million city' and to assist in achieving the targets of the Waste Strategy. The Plan will also set out the planning, governance and funding instruments required to establish this infrastructure.

The purpose of today's consultation session is to discuss and seek feedback on the site selection objective, assessment criteria and assessment process which will be used to assess and prioritise potential waste facility sites in the Perth metropolitan and Peel regions.

The **Waste and Recycling Infrastructure Plan for the Perth Metropolitan and Peel Regions** has four interrelated parts:

Planning and Approvals: The purpose of this section is to provide information and recommendations on:

- The land use planning system in WA, as it relates to waste facilities
- Environmental and planning opportunities and constraints for waste facilities in the Perth metropolitan and Peel regions, and how these may be increased or minimised respectively
- Existing land use planning mechanisms which may be used to integrate waste management issues into the WA planning framework, and secure sites for waste facilities.

Facilities and Sites: The purpose of this section is to provide information and recommendations on:

- The existing capacity of waste facilities in the Perth metropolitan and Peel regions, and likely waste infrastructure needs for 2015, 2020 and the 3.5 million city
- Potential and preferred sites for development of new waste facilities, including opportunities for co-location, waste precincts, and industrial ecology.

Technology: The purpose of this section is to provide information and recommendations on suitable waste management facilities and technologies for the Perth metropolitan and Peel regions, and assess their potential contribution to achieving the targets of the Waste Strategy.

Governance and Funding: The purpose of this section is to provide information and recommendations on:

- The settings that influence waste management in the Perth metropolitan and Peel regions
- Potential changes to current governance arrangements which may be required to meet the infrastructure needs of the region and contribute to achieving the Waste Strategy targets
- Potential changes to current funding arrangements which may be required to deliver the required infrastructure and contribute towards achieving the Waste Strategy targets.

SITE SELECTION OBJECTIVE

The objective of the site assessment process is to identify sites that will potentially suit a range of waste facility types. The sites should enable facilities to contribute to the Waste Strategy landfill diversion targets by operating as efficiently as possible, with a minimum of negative impacts on the surrounding community and environment, as part of an integrated waste management network in the Perth metropolitan and Peel regions.

SITE ASSESSMENT PROCESS

The site assessment process will be broken down into several parts:

Site assessment criteria

- Stage 1 site assessment criteria
- Stage 2 site assessment criteria

Waste facility types

- Enclosed facilities
- Non-enclosed facilities
- Drop-off facilities

The site assessment process will be undertaken in several stages. The first step will be the assessment of **industrial, potential industrial and Water Corporation nominated areas** in Perth and Peel using **Stage 1** (broad) criteria to determine their suitability for **enclosed waste facilities**.



The objective of the site assessment process is to identify sites that will potentially suit a range of waste facility types.

Site Assessment Criteria

The site assessment process will be undertaken in two stages. Stage 1 of the site assessment process will be a broad 'first pass' assessment, which will identify areas that are potentially suitable for development of waste facilities (and exclude those not suitable from further consideration). The site assessment criteria used will relate to some of the practical aspects of siting waste facilities:

Stage 1 Site Assessment Criteria	
Planning Criteria	1 Zoning: is the site zoned industrial under the Metropolitan Region Scheme or Peel Region Scheme, or identified as a potential industrial area by the WAPC in the <i>Economic and Employment Lands Strategy</i> ? How is the site zoned under the relevant Local Planning Scheme and are waste facilities a permitted land use?
	2 Land use and ownership: is there land at the site which is currently vacant and development-ready? What is the current (and expected future) land use and ownership of the site, and surrounding areas? Is this likely to adversely affect the approvals processes, construction and/or operation of waste facilities at the site?
	3 Buffers and proximity to sensitive land uses: does the site have the potential for on-site buffers? Are off-site buffer areas available? How far is the site from sensitive land uses?
Technical Criteria	4 Size: how much vacant development-ready land is available at the site? How much other potentially developable land is available? (e.g. serviced, developed land currently occupied by other land uses; vacant land not currently development ready)
	5 Access to transport routes: does the site have appropriate access to transport routes? (especially roads, but also including rail and ports)
	6 Access to services and utilities: does the site have appropriate access to services and utilities? (e.g. waste, electricity, gas and sewage services) If these services/utilities are not currently available does the site have the potential for them to be made available?
	7 Access to electricity generation connection points: does the site enable waste-to-energy facilities to access to a generation connection point of the South West Interconnected System?
Advantages to the use of this site for waste facilities	
Disadvantages to the use of this site for waste facilities	
Site Priority : 1 = highest priority, well suited to development of a range of different waste facilities 2 = medium priority, suitable with some conditions or site modifications 3 = low priority, numerous barriers to construction and operation of waste facilities at the site 4 = not suitable for development of waste facilities	
What types of waste facilities are suitable for development at the site?	

This Stage 1 site assessment process will:

- Broadly identify areas that are potentially suitable for the development of enclosed waste facilities. It is a general 'first pass' assessment that will need to be followed up with more detailed, site specific assessment at a later stage, using the Stage 2 assessment criteria.
- Prioritise sites in relation to their suitability for development of enclosed waste facilities, to enable future resources and assessments to be targeted at the most appropriate sites.
- Give a general indication of the types of waste facilities that may be suitable for the development at each site (or identify particular facility types that are not suitable).

Through this process, if a site is assessed as potentially suitable for waste facilities, this does not necessarily indicate that a waste facility will be developed here. It is an indication of potential suitability only. Detailed assessment and modelling will be required to determine if, when, what type and how many waste facilities may be developed at the site, and the best funding and governance arrangements for this to occur.

This Stage 1 assessment process is NOT intended to:

- Identify particular lots for the development of waste facilities. Only general areas will be identified, not individual blocks of land.
- Identify sites for the development of specific waste facilities (i.e. specify the exact type and capacity of a facility to be developed on the site). This process is intended to identify sites which could be potentially suitable for a range of waste facilities (although some sites may be recognised as particularly suited, or not suited, to certain types of waste facilities).
- Replace the normal planning and approvals processes for development of waste facilities.



The Stage 2 site assessment process will focus on the sites assessed in Stage 1 to be potentially suitable for waste facilities:

Stage 2 Site Assessment Criteria	
Sensitive Area Constraints	1 Environmentally sensitive areas: would development of waste facilities at the sites have significant negative impact on Matters of National Environmental Significance (MNES); Public Drinking Water Source Areas (priority 1 or 2 areas); RAMSAR or Conservation Category wetlands; or Threatened fauna, rare flora or threatened ecological communities?
	2 Culturally sensitive areas: would development of waste facilities at the sites have significant negative impact on culturally sensitive areas identified by the National Heritage list, State Heritage Register or Register of Aboriginal Sites?
Technical Criteria	3 Flexibility and capacity for expansion: does the site enable the development of a range of different types of waste facilities? (If so, which facility types?) Does the site enable facilities to expand their capacity over time?
	4 Cost: what costs are likely to apply to the development of waste facilities at the site? Are there likely to be any on-going costs associated with the use of the site? (NOTE: not seeking dollar amounts, but likely sources of expenditure related to the development or use of the site e.g. would use of the site involve subdivision costs, cost of providing services and utilities, mitigating environmental impacts, upgrading roads, demolition of existing structures etc.?)
	5 Timeframe of site availability: what is the likely lead time required to make the site ready for development of waste facilities?
	6 Opportunities for waste facility co-location or precincts: are there current and/or potential future opportunities for waste facility co-location or development of a waste precinct at the site?
	7 Opportunities for industrial ecology: are there current and/or potential future opportunities for industrial ecology at the site?
Environmental Criteria	8 Topography, geology, soil type: is the topography, geology, soil type etc. of the site suitable for construction and operation of waste facilities?
	9 Surface water and groundwater: would the development of waste facilities at the site create a pollution risk to surface water and ground water? Are risk mitigation strategies required?
	10 Native vegetation: would the development of waste facilities at the site impact Bush Forever sites and any other areas of native vegetation (both on site and in the surrounding area)?
Social Criteria	11 Access to potential workforce: can the site be readily and safely accessed by potential staff?

Waste Facility Types

Different types of waste facilities have different site requirements and offsite impacts, so waste facility types will be grouped, and separate site assessment processes will be undertaken for each group. The first sites to be assessed will be enclosed facilities:

- **Enclosed facilities** – enclosed premises used for the recovery of resources from waste. These facilities have hardstand construction and pollution control measures. Includes activities such as enclosed (indoor or in-vessel) separating, sorting, processing, treating, composting of waste:
 - Alternative waste treatment (waste-to-energy, mechanical biological treatment)
 - Materials recovery facilities ('clean' and 'dirty')
 - Recyclers (includes both licenced and unlicensed facilities and facilities which sort, dismantle, decontaminate and/or aggregate recyclable materials for transport to recycling facilities)
 - Composting facilities (enclosed)
 - C&D materials processors (enclosed)
 - Transfer stations

There are many potential advantages to locating waste facilities at sites already zoned industrial, or which have been identified as potential industrial areas.



In future stages of the site assessment process, sites will be identified and assessed for:

- **Non-enclosed facilities** – open windrow composting facilities, non-enclosed C&D recyclers
- **Drop-off facilities** – waste and recycling drop-off points accessed by the general public

Sites for future development of landfills will not be assessed as part of this project. Landfills will continue to play an important role in waste management in Perth and Peel into the future, however the issue of new landfills will be addressed separately to this project.

SITES TO BE ASSESSED

In the first step of the site assessment process the following sites will be assessed using the Stage 1 criteria for their potential suitability for development of enclosed waste facilities:

- All existing sites zoned 'Industrial' in the Metropolitan Region Scheme or Peel Region Scheme.
- All sites identified as potential industrial areas in the WAPC's *Economic and Employment Lands Strategy* (Western Australian Planning Commission 2012).
- A number of Water Corporation sites nominated as potentially suitable for co-location with waste facilities.



See Attachment 1 for a map of all sites to be assessed.

Many modern waste facilities that sort, process, aggregate, and recover resources from waste have many similarities with other industrial facilities, and thus could be considered best suited to industrial zones. This includes both prescribed premises (as described in Schedule 1 of the *Environmental Protection Regulations 1987*), as well as unlicensed facilities.

There are many potential advantages to locating waste facilities at sites already zoned industrial, or which have been identified as potential industrial areas.

Most existing and potential industrial sites in Perth and Peel have been planned so that they do not overlap with potentially incompatible areas such as Public Drinking Water Source Areas (priority 1 or 2), RAMSAR or Conservation Category wetlands, and national, state and Aboriginal heritage sites. There are some exceptions to this however, so sites must be considered on a case by case basis to determine whether these potential constraints can be overcome.

Existing and potential industrial sites may be also considered preferable when assessing potential waste facility sites in Perth and Peel because:

- While Region Planning Schemes can be amended if necessary, the approvals process is likely to be quicker, easier and more certain if sites already have an appropriate zoning under the MRS or PRS.
- Industrial sites give the most flexibility with regard to which types of facilities can be built on them, because most waste facility types are suited to industrial zones. If other zones are selected (e.g. Rural) there may be greater restrictions on the types of waste facilities that may be constructed.
- Waste facilities built within existing or potential industrial areas are likely to be surrounded by other industrial facilities. This may have several advantages:
 - It may provide opportunities for industrial ecology. Industrial areas that facilitate industrial ecology and integration between waste producers and recyclers/reprocessors is one of the WAPC's aspirations for the state, as outlined in the draft *State Planning Strategy*.

- Industrial facilities are likely to be compatible neighbours to waste facilities, reducing the likelihood of restrictions on the construction or operation of waste facilities due to incompatible adjacent land uses (e.g. urban areas).
- Industrial facilities may provide a useful buffer between waste facilities and sensitive land uses.
- Existing or potential industrial areas are likely to have (or have potential for) the services and infrastructure required for waste facilities (e.g. roads, utilities).
- Using industrial zoned sites means developing waste facilities on land designated for an industrial purpose, rather than taking land away from other purposes (e.g. high quality agricultural land, high value urban land).
- Developing waste facilities in existing or potential industrial areas is consistent with the WAPC's vision for the development of Perth and Peel, as outlined in policies and strategies such as the draft *State Planning Strategy*, the *Economic and Employment Lands Strategy*, and *Directions 2031 and Beyond*.
- The Strategic Assessment of the Perth metropolitan and Peel regions is currently underway. When the process is complete it will streamline the approvals process for new developments, and provide more certainty for proponents and state and local governments, because actions undertaken in accordance with the endorsed Matters of National Environmental Significance (MNES) Plan will not need further approval under the *Environmental Protection and Biodiversity Conservation Act 1999*. Developments that do not conform to the MNES Plan (and section 16(e) advice developed by the EPA on state environmental matters) must seek approvals on a project by project basis. This means that undertaking industrial development (such as construction of waste facilities) in areas outside those already assessed as suitable for this purpose could involve additional approvals processes, and thus be more complicated and time consuming, and less certain.
- With increasing competition for the limited industrial zoned sites in Perth and Peel, it is important to identify and secure the industrial sites needed for waste facilities in a timely and strategic manner.

The potential disadvantages of using industrial zoned sites for waste facilities include:

- Competition: there is limited industrial land available in Perth and Peel, and waste facilities face competition from many other industrial land uses for industrial sites.
- Cost: purchase or lease of serviced industrial land may be expensive. Potential industrial sites may be cheaper to lease/purchase upfront, but there may be costs associated with making it development ready (e.g. upgrading roads, connection of sites to utilities).

OTHER ACTIVITIES

This is not a stand alone project. In parallel with this site assessment process, work is underway to:

- Investigate how potential new waste facilities could be integrated with existing waste facilities.
- Explore possible mechanisms in the WA land use planning system that could be used to secure sites for waste management activities into the future.
- Model different combinations of waste facilities/technologies that could potentially enable the Waste Strategy landfill diversion targets to be met in Perth and Peel, to provide information on how many and what type of facilities could be required. This will help inform how many and what type of sites will be needed.
- Model waste facility capacity over time, to indicate when and where new facilities will be required. This will help inform when new waste facility sites will be needed, and which sites should be prioritised for development.
- Explore mechanisms for the potential acquisition, management and development of waste facility sites.
- Explore the ways WA's land use planning system which could facilitate/support the development of waste facilities in Perth and Peel (e.g. inclusion of waste and waste facility definitions in the Model Scheme Text; development of a State Planning Policy and guidelines for the siting of waste facilities)
- Explore the governance and funding models which could facilitate the development of the required waste infrastructure.

The Strategic Waste Infrastructure Planning Working Group (SWIPWG) is seeking comments/feedback on:

- The Site Selection Objective
- The Stage 1 site assessment criteria
- The Stage 2 site assessment criteria
- The sites to be assessed
- The site assessment process in general

Providing Feedback: The SWIPWG would welcome your input. Please email comments or feedback to swipwg@der.wa.gov.au