

**SITE SELECTION CRITERIA FOR A FULLY ENCLOSED RESOURCE RECOVERY FACILITY**

No.	Specific Factor	Desirable Criteria	Comment
<b>Fatal Flaws</b>			
1.	Public Drinking Water Source Areas P1 & P2	Not within Public Drinking Water Source Areas (PDWSAs) P1-P2 priority areas identified in published development plans.	The Published guidelines for Priority 1 and 2 Water Protection Areas state that they are managed to avoid any potential risk. This precludes the siting of a plant no matter what level of safeguard is built in. (Fatal Flaw)
2.	State or national Forest	Not located within a state or national forest	Self-evident (fatal flaw)
<b>Level 1 Location Criteria</b>			
3.	Separation Distances	At least 750 metres from Sensitive Land uses	<p>Under normal operating conditions for a totally enclosed plant 150 – 250 metres is considered to be an adequate separation distance between sensitive land uses and the plant structure. This depends on odour and noise modelling relevant to each site and building envelope considered. Performance based modelling should be undertaken to determine the final separation distance on a site by site basis.</p> <p>For the purposes of this criterion, <i>sensitive land use</i> includes bushland and conservation areas actively used for recreation; and existing rural residential buildings. The desirable separation distance of 750m provides for a very high level of confidence that the facility will not adversely impact on sensitive land use areas.</p>
		At least 50 metres from any area of any conservation area or area of regionally significant Bushland not actively used for recreation.	This reflects the low risk of seeds and viable plant material escaping from enclosed facilities. The essential minimum distance under these circumstances is considered to be 25 metres.

4.	Transport Routes	<p>The plant should be sited so that it can be readily accessed from appropriately classified traffic routes without heavy vehicles accessing minor suburban roads. The desirable distance is within 3kms of a designated major haulage route</p>	<p>A 100,000 tpa plant will be serviced by approximately 80 trucks/day (160 truck movement day) delivering waste and perhaps half that number of movements handling export of product from the site. It is therefore important that</p> <ul style="list-style-type: none"> <li>• the facility is not located in an area where trucks are required to travel down minor suburban roads; and</li> <li>• the site is in reasonable proximity to a designated heavy haulage route.</li> </ul> <p>Location within 5 kilometres of a designated major haulage route is considered essential.</p>
5.	Geological Stability	<p>Located on stable ground e.g. not in a seismically active area, areas susceptible to soil sinking, landslides or swelling, karst or sinkhole terrain.</p>	<p>Self evident</p>
6.	<p>Conservation Value – regionally significant Bushland, including land hosting threatened flora, fauna or ecological communities</p>	<p>The construction of the facility should not result in the clearing of vegetation on regionally significant bushland areas or areas of conservation significance.</p>	<p>In view of the limited preservation of high quality bushland and conservation areas that remain in the Perth Metropolitan Region, it is preferable that vegetation in such areas is not cleared for the construction of any industrial or waste facilities. Where there is indication of rare flora and/or fauna, detailed analysis will be required prior to a final determination.</p>
7	<p>Natural Waterways/ Wetlands/Marine Systems</p>	<ul style="list-style-type: none"> <li>• No closer than 500m to high conservation/ ecological value aquatic ecosystems;</li> <li>• No closer than 250m from a slightly to moderately disturbed systems; and</li> <li>• not less than 100m from highly disturbed aquatic systems.</li> </ul>	<p>While RRFs pose a low direct risk of impact from groundwater pollution they do need to consider fire water impacts in the event of a major fire and storm water management in extreme storm events.</p> <p>The minimum essential separation distance from natural water ways is 50 metres.</p>

<b>Criteria which may be achieved through engineering solutions</b>			
8	Flood plains	Capable of meeting the 100 year flood event requirements	This criteria aims to secure water supplies from possible pollution. Given the enclosed nature of the plant, the relatively low hazard nature of the waste and the relatively small volumes of materials stored, the potential to use engineering solutions to ameliorate possible adverse impacts and to ensure that the facility was a minimum of 500 mm above the 1:100 flood event is considered essential
9	Groundwater	Groundwater should be maintained at least 1m below the surface.	A 1 metre separation distance is regarded as acceptable given an enclosed facility. This provides adequate protection in the event of emergency events that require waste to be temporarily stored outside a building in the event of a fire where contaminated fire water may enter the environment. By way of example the recommended separation distance for a landfill would be 5 metres in sandy soils and 3 m in clay soils.
10	Constructed drainage systems e.g. storm water	Not within 25m of an entry point of a constructed surface drainage feature.	Despite the low risk of surface water contamination with an enclosed operation it is considered desirable not to site a facility on a site where the operational areas of the site are within 25 metres of drainage point. This accounts for the risk that employees may carelessly dump materials and also the risks arising from fires.
11	Topography	Not located in an area with a slope >4 %.	Highly sloping sites increase the risk of rapid surface water flow and make management of surface water flows potentially difficult. This issue can be addressed with engineering solutions.
<b>Level 2 Additional Location Criteria</b>			
12	Public Drinking Water Source Areas P3	Not within Public Drinking Water Source Areas (PDWSAs) P3 priority areas identified in published development plans.	The Guidelines for Priority 3 PSDWA permit activities which are a relatively low risk to groundwater quality such as an enclosed RRF
13	Heritage Value	No negative impact on sites of recognized cultural or historical significance.	Adverse impacts may be mitigated through management and design. This should be taken into consideration as part of detailed site assessment and

**ADDITIONAL CRITERIA SHOULD THE FACILITY HOST A NON-ENCLOSED GREEN WASTE PROCESSING SYSTEM**

1	Separation Distances (Non-enclosed facilities storing or treating Greenwaste or C&D Waste)	Any active areas of such facilities should be sited a minimum of 150metres from regionally significant bushland areas and areas of conservation not actively used for recreation	This aims to protect regionally significant bushland and conservation areas from the risk of propagation of exotic species, weeds and diseases due the spread of seeds and viable plant material by the action of wind, storm water and vehicle movements. The increased separation distance reflects the higher risk of propagation from a non-enclosed facility handling green waste. A separation of 100 metres is considered essential, with 150 metres being desirable.
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