

# 1. Statement of Commitments

The proponent commits to implement the measures outlined in Table 1. The recommended content of the construction and operation environmental management plan are outlined in chapters 8 to 18 in part C of the environmental assessment (EA). Table 1 lists those measures that are additional to environmental management measures.

**Table 1 Kimbriki Resource Recovery Project - Commitments**

Issue	Commitments
<b>Site footprint</b>	A revised site footprint is shown on Figure 1 along with retained natural vegetation areas. This is smaller than the footprint shown in the EA. The building works will not extend outside this revised footprint.
<b>General management plans</b>	<p>A construction environmental management plan would be prepared and implemented as outlined in section 18.2.2 of the EA (reproduced as Table 2).</p> <p>An operational environmental management plan would be prepared and implemented as outlined in section 18.2.2 of the EA (reproduced as Table 3).</p> <p>1.1.1 The Operational Environmental Management Plan would take account of the possibility of mechanical failure and human error, and include contingency measures to ensure that there are no adverse impacts on surrounding residences and businesses should one or more element of the process not operate as planned.</p>
<b>Biodiversity</b>	<p>An offset strategy would be implemented following finalisation of agreements with government agencies, and would be in the form of a public positive covenant pursuant to Section 88E of the <i>Conveyancing Act 1919</i>. A Biodiversity Management Plan would be prepared for the designated offset area including <i>Tetratheca glandulosa</i> and the <i>Coastal Upland Swamp area</i>. The Plan would be prepared in accordance with Warringah Council's Guidelines.</p> <p>1.1.2 The selected offset areas would be reserved in perpetuity, physically protected, and managed in accordance with the Biodiversity Management Plan to ensure the long-term survival of threatened and significant flora, fauna and ecological communities.</p> <p>1.1.3 Areas identified as being EEC significant would be monitored to ensure no impacts as a result of the construction and ongoing operations. The construction and ongoing operations could be modified in the event there was a measured impact arising.</p> <p>1.1.4 Additional measures are proposed to contribute to the formal offset strategy and impact mitigation measures proposed in the EA (chapter 8).</p> <p>1.1.5 They include 'Restricted Activity' areas, where existing vegetation will be retained, but necessary works such as</p>

Issue	Commitments
	<p>construction of stormwater diversion drains and stormwater treatment facilities will be undertaken in future.</p> <p>Measures include:</p> <ul style="list-style-type: none"> <li>• Formal offset areas as shown in Figure 2;</li> <li>• Areas of restricted activity (totalling approximately 4.7 ha), as shown in Figure 3; <ul style="list-style-type: none"> <li>▪ Project site landscaping;</li> <li>▪ Future regeneration of completed landfilling (this may vary according to operational requirements); and</li> <li>▪ As far as practicable, inclusion of additional land if the successful proponent requires less land area to conduct the works.</li> </ul> </li> </ul>
<p><b>Air quality and odour</b></p>	<p>Measures to reduce the potential for air quality impacts would be incorporated into the design of the facility as described in section 9.4 of the EA.</p> <p>The specifications provided to prospective equipment suppliers would dictate the technical and environmental performance the equipment would be expected to meet, based on the proponent's operational requirements and the conditions of consent for the project.</p> <p>An odour management plan would be prepared as part of the operation environmental management plan detailing measures for the control of odour generation.</p> <p>The proposed composting tunnels, control equipment and receiving area would be housed within a fully enclosed building, which would be maintained at negative air pressure; The waste processing activities proposed under the project would take place indoors under controlled conditions with bio filters to remove odour from expelled air.</p> <p>Outdoor refinement or stockpiling of wastes, in-process materials or finished products associated with the project would not be allowed.</p> <p>Air vents in the sides of the buildings would allow fresh air to be drawn in to replace the volume of air being extracted by electrically driven fans. These fans would run continuously to maintain the buildings at negative pressure.</p> <p>The buildings would be fitted with high-speed roller doors (including air curtains), which would be kept closed as much as possible.</p> <p>Waste would be deposited within the building and following discharge from the truck, the driver would be required to utilise a high pressure washer to ensure that the tailgate seal and the rear of the truck is washed clean.</p> <p>Biofilters would be installed to treat the air collected from the buildings before it is released to the atmosphere.</p> <p>The biofilters would be enclosed and vented through a stack one metre above the roof line to disperse any odour such that air quality goals for odour can be met.</p>

Issue	Commitments
	<p>A dust management plan would be prepared for both construction and operation phases of the project.</p> <p>The Construction Environmental Management Plan would include a number of mitigation measures, including preparation and implementation of a dust management plan. This would include measures to limit dust emissions including:</p> <ul style="list-style-type: none"> <li>• Site management measures</li> <li>• Managing stockpiles of excavated materials to suppress dust emissions</li> <li>• Watering of unsealed haul roads and disturbed surfaces</li> <li>• Restricting the size of disturbed surfaces as much as practicable</li> <li>• Preventing truck over-loading and covering dusty loads</li> <li>• Vehicle movement controls.</li> <li>• Ceasing dust generating activities during excessively dusty conditions and when dust emission criteria from operations cannot be maintained</li> <li>• Dust monitoring during construction in accordance with recognised standards.</li> </ul> <p>The Operational Environmental Management Plan would include a number of mitigation measures, including preparation and implementation of a dust management plan.</p> <p>This would include measures to limit dust emissions including:</p> <ul style="list-style-type: none"> <li>• No stockpiling of waste or waste derived products outdoors;</li> <li>• No refinement or handling of waste or waste derived products outdoors;</li> <li>• Ensuring all the areas used for vehicle movements are sealed and kept clean by the use of washdown trucks or street sweepers; and</li> <li>• Landscaping all other outdoor areas to ensure they are vegetated to reduce dust emissions.</li> </ul>
<b>Traffic and transport</b>	<p>During the detailed design phase the proponent would ensure that the layout of the proposed car parking areas, including driveways, aisle widths, grades, parking bay dimensions, sight distance requirements and turn paths is designed in accordance with AS 2890.1-2004 and AS 2890.2-2002 for heavy vehicle usage.</p> <p>All vehicles would enter and exit the site in a forward direction.</p> <p>All vehicles would be wholly contained on site before being required to stop.</p> <p>Car parking areas and entry/exit points would be clearly delineated through line marking and signage to ensure smooth, safe traffic flow.</p> <p>If construction works or operational requirements of the project impact on right-turn movements into and out of the Kimbriki Resource Recovery Centre, the proponent may also introduce specific operational procedures for the morning peak.</p>

Issue	Commitments
	<p>A minimum of approximately 80 parking spaces would be provided during construction. Adequate parking spaces for 60 operational staff plus visitors would be provided as part of the design of the project.</p> <p>To minimise impedance to through movements and to facilitate turning movements into and out of Kimbriki Road, the following works would be undertaken:</p> <ul style="list-style-type: none"> <li>• Extension of the length of the right turn bay on Mona Vale Road by approximately 30 m to a total 100 m;</li> <li>• Extension of the existing westbound acceleration lane to 250 m length;</li> <li>• Widening of Kimbriki Road to provide a dedicated left turn lane of 80 m in length and a separate right turn lane. The left turn slip lane in Kimbriki Road would allow larger vehicles to have uninterrupted access to the westbound acceleration lane; and</li> <li>• SIDRA modelling which incorporates the above improvements to demonstrate that the intersection of Mona Vale Road and Kimbriki Road would operate satisfactorily</li> </ul> <p>The design works would be undertaken in accordance with Austroads Guide to Road Design in association with relevant RTA supplements. The design would be submitted to the RTA for review and endorsement prior to the improvement works commencing.</p> <p>The proponent would enter into a Works Authorisation Deed (WAD) for the works to the intersection as described above. The WAD would be executed prior to the RTA's assessment of the detailed design plans.</p> <p>The proponent would be responsible for all public utility adjustment/relocation works to the intersection necessitated by the above works and as required by the various public utility authorities and/or their agents.</p> <p>A Construction Traffic Management Plan detailing construction vehicle routes, number of trucks, hours of operation, access arrangement, traffic control and advanced warning signs shall be submitted to Warringah Council and RTA prior to the issue of a construction certificate.</p> <p>The proponent would continue to liaise with the Roads and Traffic Authority regarding the design and upgrading of the Mona Vale Road/Kimbriki Road intersection.</p>
<b>Soil and water</b>	<p>The proponent would implement measures during construction to minimise soil erosion and discharge of sediments from the site.</p> <p>The proponent would upgrade the capacity of the Kimbriki Resource Recovery Centre stormwater treatment system to cope with the increased flows associated with the project, to meet current EPL requirements for offsite surface water discharges.</p> <p>The proponent would require the successful tenderer to undertake detailed engineering design for the project to ensure that the volume, velocity, frequency of flow, and water quality entering the swamp and downstream drainage lines replicates natural conditions as closely as possible.</p>



Issue	Commitments
	<p>The design of the operational stormwater management system, as outlined in the Preferred Project Report (Nov 2011), would minimise the potential for impacts on surface water, nearby creeks and on groundwater.</p> <p>A detailed drainage plan would be prepared prior to commencement of construction. The drainage plan would include measures to minimise disruptions to natural water flows and control the quality of water runoff into the natural drainage flow path.</p> <p>A stormwater management plan (including details of stormwater treatment and detention devices) would be prepared prior to commencement of construction. This will be in accordance with the principles illustrated outlined in the Preferred Project Report.</p> <p>Any impact on any riparian land (including vegetation) would be minimised to the greatest extent practicable.</p> <p>Adequate stormwater treatment devices would be installed and maintained to ensure that water quality and hydrology mimics pre-development characteristics.</p> <p>A water and groundwater quality testing program would be prepared and implemented. GDEs would also be monitoring during construction and operation, as per Tables 18.1 and 18.2 of the EA, which are reproduced as Table 2 and Table 3.</p> <p>The proposed wastewater irrigation area would be located so as to ensure contaminated water does not impact any watercourse.</p>
<b>Greenhouse gas</b>	<p>Potential energy efficiency measures including in the areas of lighting, compressed air, ventilation, odour prevention and removal, heating and cooling, and process efficiency (as detailed in section 13.4 of the EA) would be considered in the detailed design phase of the project.</p>
<b>Noise</b>	<p>The project would be designed and operated to ensure that noise criteria are not exceeded during operations.</p> <p>A construction noise management plan would be prepared as part of the construction environmental management plan to detail how construction noise impacts would be minimised. This would include the measures identified in section 10.5.1 of the EA. Whilst there may be some exceedences of the +10 dB(A) target levels stated in the Preferred Project Report, these would be limited to the levels shown in Table 4.</p> <p>An operational noise management plan would be prepared incorporating the measures for the control of noise identified in section 10.5.2 of the EA. Operational noise levels would be limited to the levels shown in Tables 10.3 and 10.4 of the EA, which are reproduced as Table 5 and Table 6.</p>
<b>Heritage</b>	<p>If any Aboriginal cultural objects are uncovered during construction, all works would cease and a suitably qualified archaeologist and Aboriginal community representatives would be contacted to determine the significance of the object(s) and appropriate management responses.</p> <p>If human remains were located during construction, all works would cease and the NSW Police, the Aboriginal community and OEH notified.</p>



Issue	Commitments
<b>Hazards</b>	<p>All safeguards identified in the hazard identification process (Table 15.1 of the EA reproduced as Table 7) would be implemented through the development and implementation of a comprehensive safety management system for the operation of the facility.</p> <p>To minimise potential bushfire risk, asset protection zones would be provided and maintained, appropriate construction materials and methods would be used, safe access and egress and an adequate supply of water would be provided:</p>
<b>Visual</b>	<p>A landscape concept plan would be developed as part of the detailed design of the project. The plan would include tree plantings consistent to assist in reducing visual impacts of the project and include native and endemic species to ensure the existing character is retained.</p> <p>The design of the project would involve consideration of building materials and treatments to minimise the potential visibility of the project. Design recommendations provided in section 16.4 of the EA would be incorporated into the detailed design of the project where practicable.</p>
<b>Socio-economic/litter</b>	<p>The proponent would undertake ongoing consultation with the local community and other key stakeholders during construction and operation.</p> <p>The proponent currently has programs in place to deal with litter escaping from vehicles using the site. These programs would be expanded to include the additional waste collection vehicles visiting the site.</p>

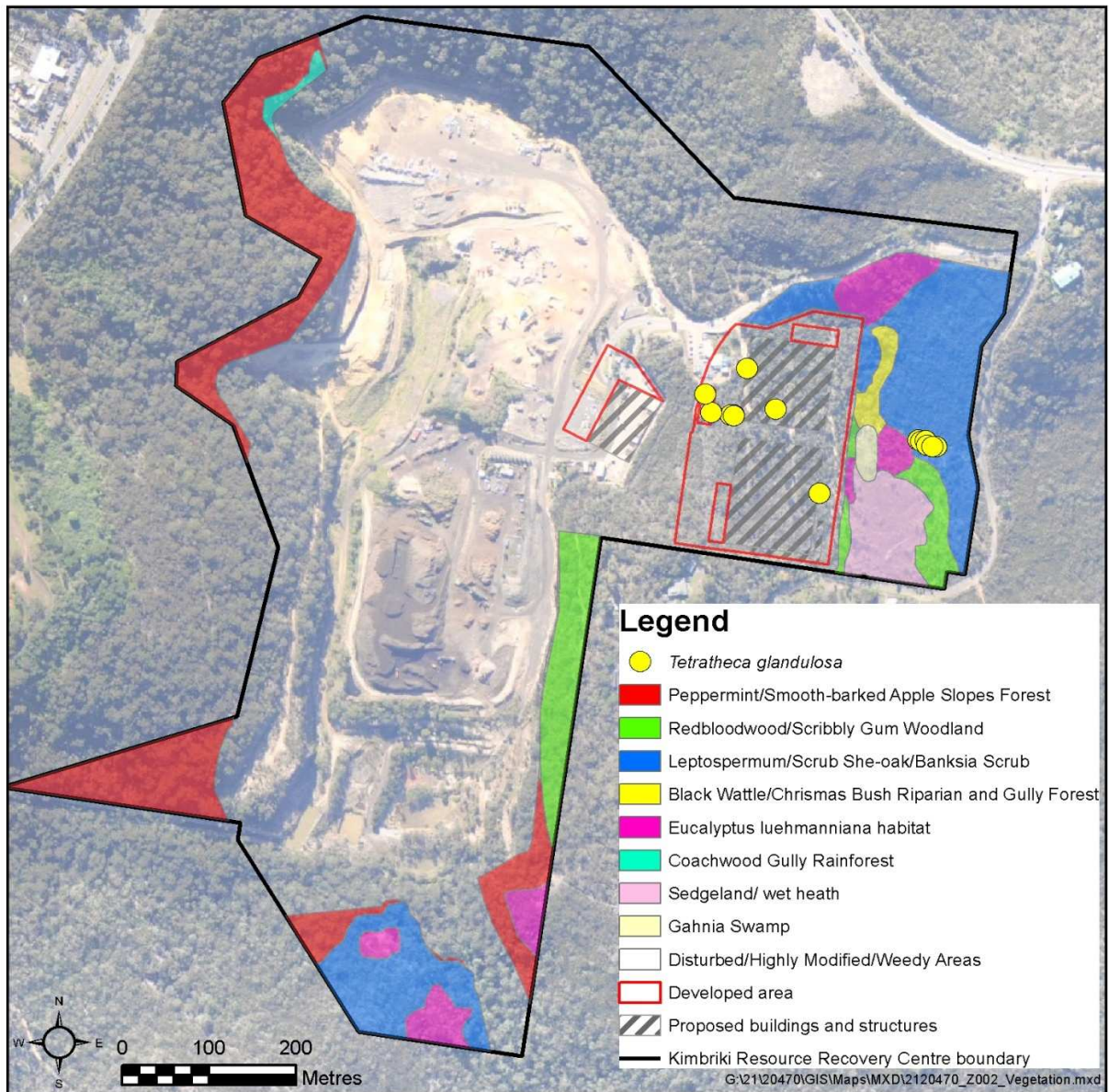






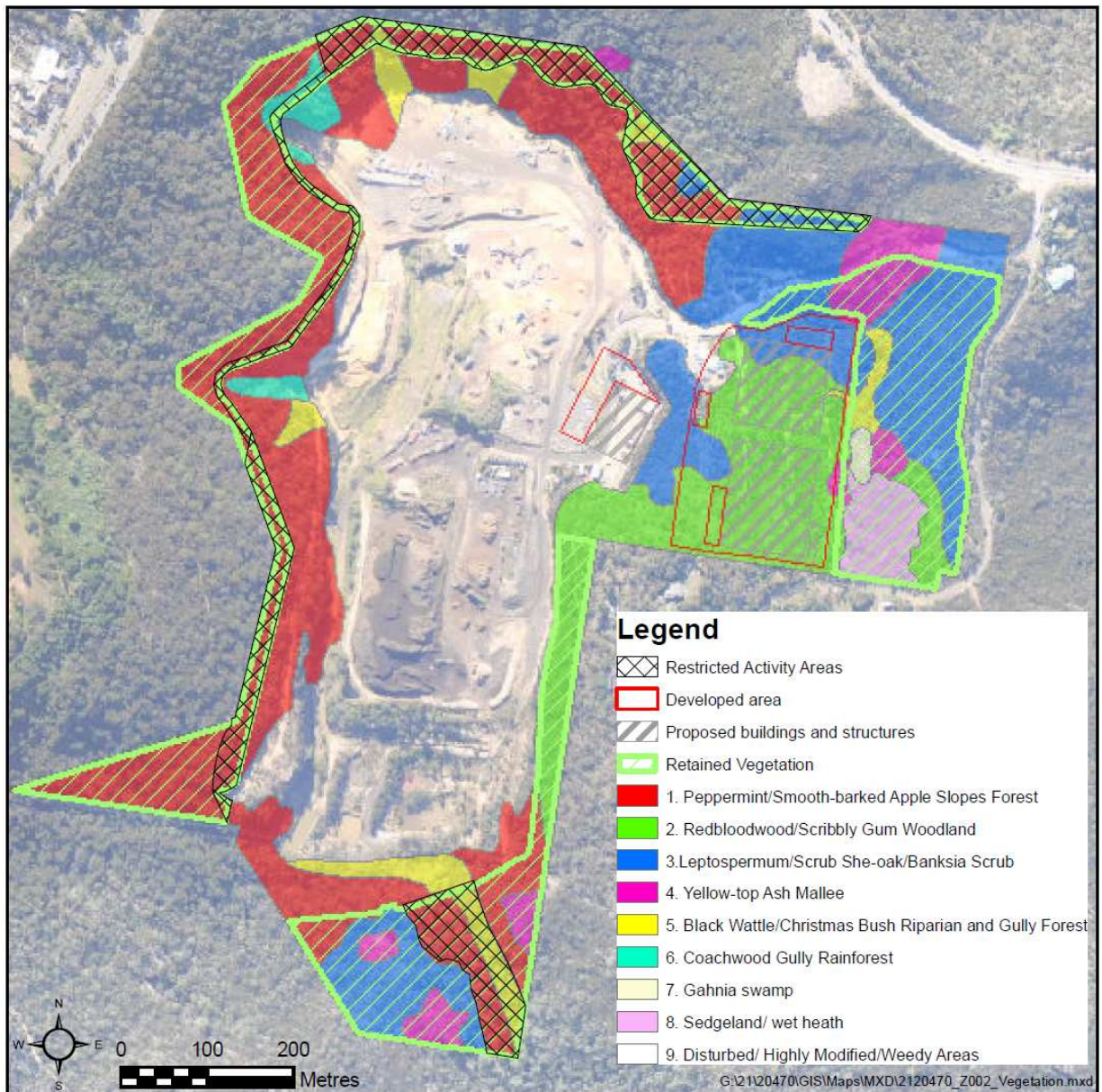
**Figure 1** Revised project footprint





**Figure 2 Formal offsets**





**Figure 3 Restricted activity areas and retained vegetation**

**Table 2 Monitoring requirements during construction**

Issue	Monitoring
Noise	Measure noise levels at the boundary prior to construction, at commencement of construction and monthly during construction.
Biodiversity	Monitor the extent of clearing to ensure it is confined to areas in the environmental assessment. Monitor the impact on groundwater dependent ecosystems.
Air quality	Continually monitor dust generation from site (visually) to ensure excessive dust is not being produced and that dust suppression activities are effective. Monitor dust generation from site by checking readings from existing dust gauges on site - on a monthly basis.
Waste	Inspect waste receptacles to ensure they are not overfilled and are being collected regularly. Monitor waste recycling and disposal procedures to ensure they are being complied with.
Water	Review results from surface water sampling undertaken as part of the overall Kimbriki Resource Recovery Centre environmental management.
Groundwater	Review groundwater levels and sampling results as part of overall Kimbriki Resource Recovery Centre environmental management.
Erosion and sediment control	Prior to commencement of each stage of construction, inspect site to ensure that sediment and control devices are in place. Inspect sediment control devices to ensure they are installed and operating correctly. Inspect devices particularly during wet weather events to monitor water flows and drainage lines and install new devices as required.
Traffic	Inspect trucks to ensure they are not overloaded, adhere to speed limits, cover their loads, correctly licensed and undertake regular inspections and safety checks. Inspect signs and hazards markers to ensure they are used appropriately, are in place and clearly visible.

**Table 3 Monitoring requirements during operation**

Issue	Monitoring
Water	Monitor water in sedimentation dams and receiving waterways on a quarterly basis. Monitor surface water during wet weather events.
Air quality	Monitor dust generation from site by checking readings from existing dust gauges.



Issue	Monitoring
	Monitor odour levels once plant is operating and undertake regular odour patrols in the area.
Groundwater	Review groundwater levels and quality sampling results from monitoring as part of overall Kimbriki Resource Recovery Centre environmental management.
Noise	Conduct noise monitoring at plant during plant commissioning stage and normal operation.
Pest, vermin and weed control	Arrange for inspection on an annual basis by a licensed pest control and ensure adequate control is implemented. Control weeds using an appropriate biodegradable herbicide.
Traffic	Ensure vehicles are adhering to speed limits, and weights limits and using defined access roads.
Biodiversity	Monitoring of the implementation of the vegetation management plan, as described in section 8.4.1 of the EA. Monitor the impact on groundwater dependent ecosystems.

**Table 4 Predicted construction noise levels (dB(A)) – Revised Layout**

Receiver	Criteria	Predicted noise levels	Predicted maximum exceedence
A	60	32 – 46	-
B	60	39 – 53	-
C	43	39 – 53	10
D	43	41 – 55	12
E	43	40 – 54	11
M	43	48 – 62	19
N	43	38 – 52	9
O	43	40 – 54	11
P	43	38 – 52	9
National Park Reserve	60	43 – 57	-

**Table 5 Construction noise goals**

Time of day	Residences	RBL L <sub>A90</sub> (period)	Management level L <sub>Aeq</sub> (15min)	
Recommended standard hours	Residences adjacent to Mona Vale Road	50 dB(A)	Noise affected	60 dB(A)
			Highly noise affected	75 dB(A)
	Residences south of the site	33 db(A)	Noise affected	43 dB(A)
			Highly noise affected	75 dB(A)
Outside recommended hours	All residences	28 to 29 dB(A)	Noise affected	35 dB(A)

**Table 6 Operation noise criteria (dB(A))**

Residences	Criteria	Day (7 am-6 pm)	Evening (6 pm-10 pm)	Night (10 pm-7 am)
Residences south of the site	Rating background level, L <sub>A90</sub> (Period)	33	34	28
	Existing level of industrial noise; L <sub>Aeq</sub> (Period)	35 to 43	-	-
	Intrusiveness criteria, L <sub>Aeq</sub> (15min)	38	39	35
	Amenity criteria (suburban), L <sub>Aeq</sub> (Period)	55	45	40
	DECCW EPL noise limit (L13091)	45 L <sub>A10</sub> (15min)	-	-
	<b>Project specific criteria</b>	<b>43</b> L <sub>Aeq</sub> (15min)	<b>39</b> L <sub>Aeq</sub> (15min)	<b>35</b> L <sub>Aeq</sub> (15min)
Residences adjacent to Mona Vale Road	Rating background level, L <sub>A90</sub> (Period)	50	42	29
	Existing level of traffic noise; L <sub>Aeq</sub> (Period)	64	60	55
	Intrusiveness criteria, L <sub>Aeq</sub> (15min)	55	47	35
	Amenity criteria (road traffic noise), L <sub>Aeq</sub> (Period)	54	50	45
	DECCW EPL noise limit (L13091)	45 L <sub>A10</sub> (15min)	-	-
	<b>Project specific criteria</b>	<b>43</b> L <sub>Aeq</sub> (15min)	<b>43</b> L <sub>Aeq</sub> (15min)	<b>35</b> L <sub>Aeq</sub> (15min)





**Table 7 Hazard identification**

Hazard Scenario	Causes	Consequences	Recommended Safeguards
Hazardous waste	Hazardous waste enters project and reacts with other materials	Generation of toxic fumes Personnel exposure to toxic substances	Hazardous materials sorting and screening Operational procedures for management of hazardous waste
Hazardous waste	Significant volumes of hazardous material enter the RRF	Generation of toxic fumes. Personnel exposure to toxic substances	Hazardous materials sorting and screening Operational procedures for management of hazardous waste
Ignition of incoming materials or finished product.	Stockpiling of incoming material for extended periods Overall power failure or interruption for significant period of time leading to lack of aeration Failure of aeration system for other reasons	Anaerobic decomposition takes place producing methane biogas Potential for destruction of the project	Minimise storage time of incoming materials prior to processing Gas monitoring Fire extinguishers and suppression systems. Install aeration system for maturation building to maintain ventilation and restrict temperature rise of finished product
Ignition of flammable materials	Ignition of flammable materials stored onsite e.g. waste paper, cardboard, plastics etc	Fire develops	Operation procedures for storage of materials Designated storage areas Fire detectors Fire extinguishers and suppression systems
Ignition of toxic flammable materials	Ignition of flammable materials stored onsite e.g. waste paper, cardboard, plastics etc	Potential for the generation of toxic fumes	Operation procedures for storage of materials Designated storage areas Fire detectors Fire extinguishers and suppression systems.
Operational / mechanical interactions	Failure of machine guarding / working in close proximity to rotating and moving equipment	Personal injury	Machine guarding Operational / maintenance procedures Operator competency
Vehicle interactions	Vehicle movements in vicinity of personnel	Personal injury	Traffic management plan including standard traffic rules, signage etc Designated pedestrian areas Driver competency Operational procedures
Particulate	Aerobic digestion process generates	Personal health	Operational procedures



Hazard Scenario	Causes	Consequences	Recommended Safeguards
generation	odour and particulates	issues	Air filtered through biofilter prior to release
Confined space incident	Access to tunnels	Possible asphyxiation due to atmospheric conditions within confined space	Operational procedures, including confined space entry permit Operator competency in confined space entry Breathing apparatus Aeration of tunnel prior to entry Gas monitoring
Fall from height	Person working at height falls	Personal injury	Operator competency for working at heights Work at heights procedures and work permit Suitable work at heights equipment e.g. fall protection
Electrical incident	Exposure to damaged electrical equipment	Electrocution	Design and maintenance of all electrical systems as per legislative requirements Physical protection (cabinets, bollards etc.) around high risk electrical installations