Appendix F

Project Environmental Risk Assessment

APPENDIX F – PROJECT ENVIRONMENTAL RISK ASSESSMENT

Issue	Aspect	Impact	Risk Assessment Ranking			Environmental Impact Statement Scope
			C	L	R	
Waste & Contamination Management	Receival, consolidation, and composting of organics, biosolids, and recycled water	Land and water contamination	High	2	8, Mod	A waste management plan has been undertaken as part of the EIS. The management plan details the waste streams to be accepted at the site. The management plan also detailed proposed control measures to be implemented. Details of how waste would be stored, handled (including inappropriate waste) and transported to and from site were also detailed.
	Generation of sewage	Water contamination	Mod	1	3, Low	Onsite sewerage will be handled through a portaloo which will be pumped out weekly.
	Generation of general waste	Land contamination	Minor	1	2, Low	Mitigation and management measures have been proposed to reduce the impacts associated with waste management on site and ensure compliance with regulatory and statutory requirements and ensure consistency with the aims, objectives and guidance in the *NSW Waste Avoidance and Resource Recovery Strategy 2014-2021.*
Hazard and Offence	Storage and handling	Soil and water contamination	Mod	2	6, Mod	A relevant level of hazard assessment has been undertaken for the Project in accordance with SEPP 33. The assessment also establishes the relevant handling, storage and transport requirements for hazardous materials at the site.
Traffic and Access	Vehicle movements from employees, and in-bound and out-bound deliveries during operations	Increased traffic movements	Minor	2	4, Mod	A Traffic and Transport Impact Assessment has been undertaken for the Project in accordance with the *'Guide to Traffic Generating Developments'* (RTA 2002). The Assessment included a review of previous traffic impact assessments undertaken for the surrounding area, assessment of construction and operational traffic types, volumes and movements on site and existing road networks, and predicted impacts of increased traffic on road safety. Detailed plans of the proposed layout of the internal road network and onsite parking have also been prepared.
	Construction traffic					

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						Mitigation and management measures have been proposed to reduce the traffic related impacts.
Air Quality and Odour	Vehicle movements	Elevated airborne, deposited dust and odour emissions	Minor	2	4, Mod	An Air Quality Impact Assessment has been undertaken for the Project in accordance with the *Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales* (DEC, 2005). The Assessment included confirmation of background levels, determination of site criteria, air quality impacts for the construction and operational phases, calculation of likely greenhouse gas emissions, cumulative impacts and a literature review. The assessment considered emissions of dust and odours. Mitigation and management measures have been developed to reduce the impacts on air quality.
	Receival, consolidation, and composting of organics, biosolids, and recycled water		Minor	2	4, Mod	
Greenhouse Gas	Combustion of fuels during construction and operations	Greenhouse gas emissions	Minor	1	2, Low	The Air Quality Impact Assessment included an assessment of greenhouse gas Scope 1, 2 and 3 emissions in accordance with the Australian Greenhouse Office's (AGO) *Factors and Methods Workbook* (AGO, 2006) as part of the Air Quality and Greenhouse Gas Impact Assessment described above. Mitigation and management measures have been developed to reduce the impacts on air quality.
	Generator use for electricity supply onsite					
Noise and Vibration	Vehicle movements	Excessive noise and vibration generation at sensitive receivers	Minor	2	4, Mod	A Noise and Vibration Impact Assessment has been undertaken for the Project in accordance with relevant NSW regulatory policy and guidelines, including the *Industrial Noise Policy 2000*, *Interim Construction Noise Guidelines* and *Road Noise Policy*. The Assessment determined likely criteria for the Project and included an assessment of construction and operational noise and vibration impacts, and cumulative noise impacts with other approved industry in the vicinity. Mitigation and management measures have been developed to reduce the noise and vibration impacts of the project.
	Receival, consolidation, and composting of organics, biosolids, and recycled water		Minor	2	4, Mod	

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Soil and Water	Disturbance of soils during construction	Sediment movement resulting in contamination of nearby surface water and groundwater	Mod	2	6, Mod	Surface water and groundwater assessments have been undertaken for the Project. The Assessments included a review of existing surface and ground water assessment information, the identification of surface and groundwater resources, assessment of existing surface and groundwater hydrology, and an assessment of potential surface water and groundwater impacts on and offsite. The assessment also included the development of a site water balance to assist with the design of the wastewater containment system and the design of a groundwater monitoring program. Measures have been developed to mitigate and or manage surface and groundwater and soil contamination issues associated with the project. A 16ML nutrient and sediment control dam will be utilised to treat onsite storm water from process areas. As a secondary control, any water discharged from this nutrient and sediment control dam then reports to Void 4 which does not discharge from the site.
	Flooding /stormwater and wastewater management	Contamination of nearby surface water and groundwater resulting from surface water runoff from site	Mod	2	6, Mod	
		Flooding on the site and to infrastructure	Mod	2	6, Mod	
	Wastewater Containment System	Contamination of nearby surface water and/or groundwater resulting from flows leaving site	Mod	2	6, Mod	
Aboriginal Cultural Heritage	Ground disturbance during construction	Disturbance of Aboriginal artefacts, sites or places of cultural heritage significance	High	1	4, Mod	An Aboriginal Archaeological and Cultural Heritage Impact Assessment for the Project has been undertaken in accordance with the *National Parks & Wildlife Act 1974 Part 6 Approvals Interim Community Consultation Requirements for Applicants (ICCRs)* (NPWS 2004) and DECCWs *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010.* The Assessment consisted of a desktop review - database and literature search of previously recorded Cultural Heritage information. In addition, field survey assessment has been conducted with members of the local Aboriginal community. Mitigation and management strategies have been developed in consultation with Registered Aboriginal Parties in the event that an Aboriginal artefact is discovered.
Historic Heritage	Disturbance during construction activities	Impact to historic heritage of local or state significance	Mod	1	3, Low	A desktop review - database and literature search of previously recorded historic heritage information. To date there are no listed items within the Project area, nor were any items discovered during field inspection activities.

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Fire and incident management	Fire during operations	Impact of a fire from compost windrows and the ability to manage fire water	High	2	8, Mod	The operations have access to sufficient reserves of raw water from Void 4 for fire fighting purposes. Raw water from Void 4 water is pumped to a 300,000 litre onsite water tank that is capable of filling the two onsite water carts. Both water carts are equipped with firefighting hoses and pumps and have a combined capacity of 27,000 litres. A site emergency response plan and procedures are in place for the operations and the staff are trained in the use of the fire-fighting equipment. The surface water drainage for the pad area is within a closed system and all water from within this closed system reports to the onsite leachate dam. Any overflow from this leachate dam then reports to Void 4 which does not discharge from site. As such fire water produced in the event of a fire will be captured in the onsite leachate dam which will have an expanded capacity of 16ML. This leachate dam rarely receives inflow and the storage would always be kept low through re-using the water in the composting process rather than accessing raw water.
Biodiversity	Disturbance of biodiversity during construction and operations	Disturbance to State and Federally listed species, communities or habitat for species	High	2	8, Mod	A Preliminary Biodiversity Assessment has been undertaken for the Project in accordance with the relevant Government guidelines, policies, and legislation. The site is highly disturbed from previous mining activities and the emplacement of fly ash from AGLs power generators. The ecological investigations have found that there is not considered to be any affect, or suitable habitat present over the site or immediate surrounds to support any Threatened species, Endangered Ecological Community, Critical Habitat, or Endangered Populations by the proposed works. There is not considered to be any significant impact on any threatened species, Endangered Ecological Community, critical habitat, or endangered populations by the proposed works on any state or nationally listed species under the *EP&BC Act 1999,* or *BC Act 2016*.
Visual Amenity	Visibility of the proposed new infrastructure	Impact to visual amenity of existing environment	Minor	1	2, Low	A visual assessment has been undertaken for the Project in accordance with current best practice. The assessment consisted of a desktop review – aerial photography, proposed works, existing reports and planning policy. In addition, a field inspection was undertaken to determine the visibility of the proposed project at a local context. The site is highly shielded from the New England Highway and surrounding receivers therefore visual impacts are considered to be minimal.

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Socio-economic	Social	Demands on local infrastructure and services, impacts to demographics	Minor	2	4, Mod	A desktop socio-economic assessment of the Project has been undertaken as part of the overall EIS. The economic benefits of the Project have been considered, in addition to the potential social impacts. It is considered that the economic benefits far exceed any social impacts that would result from the development.
	Economic	Increased employment opportunities for local residents	Minor	2	4, Mod	
Cumulative Impacts	Construction and operations	Cumulative impacts on existing receivers	Minor	2	4, Mod	All studies incorporate cumulative impacts assessments with approved industries in the vicinity of the Project, where sufficient information was available.