Table 1. Assessment of odour risks

Hazard	Receptors	Harm	Pathway	Probability of Exposure	Consequence	Magnitude	Justification	Risk Management	Residual Risk
Odour from mixed waste streams. Fugitive emissions from: • Placement of waste • Transfer activities	Residential within 35 m to the south east The surrounding land is predominantly agricultural land and commercial. Workers on the neighbouring land.	Nuisance and loss of amenity value.	Atmospheric (fugitive). Air transport then inhalation.	Low	Medium	Very Low	Waste types being imported will predominantly be from construction sites and will not include odour generating wastes (putrescible waste).	Controls on the type of waste streams accepted. Emissions should be free from odour. Recording any complaints and implementing controls, as outlined in the Operational Management Plan (OP).	Low

Table 2. Assessment of noise and vibration risks

Hazard	Receptors	Harm	Pathway	Probability of Exposure	Consequence	Magnitude	Justification	Risk Management	Residual Risk
Noise and vibration emissions from haulage (road deliveries), and landfilling of waste.	Residential within 35 m to the south east The surrounding land is predominantly agricultural land and commercial. Workers on the neighbouring land. Priority Habitats on site, to the east, 10 m north, 185 m south east. An 375 m north west. There are no statutory designated sites within 500 m.	Levels of noise that cause loss of amenity and nuisance to users and residents in the locale.	Airborne	Low	Medium	Low	The site activities occurs in a mixed agricultural, commercial and residential area. Works will adhere to normal operating hours. The works will be screened from nearest residential receptors by the boundary vegetation and existing void façade for the majority of the infilling. The working arrangement does not include any processing.	All operatives inducted on the requirement to reduce noise emissions and adherence to the site OP. All plant and vehicles will meet current guidance and will be maintained in line with manufacturer's requirements.	Low

Table 3. Assessment of fugitive emissions (other than odour, noise and vibration)

Hazard	Receptors	Harm	Pathway	Probability of Exposure	Consequence	Magnitude	Justification	Risk Management	Residual Risk
To Air									
Dust from vehicle operations from external haul roads. Dust from landfilling and handling of waste streams.	Residential within 35 m to the south east The surrounding land is predominantly agricultural land and commercial. Workers on the neighbouring land. Priority Habitats on site, to the east, 10 m north, 185 m south east and 375 m north west. There are no statutory designated sites within 500 m.	Harm to human health, respiratory irritation and illness.	Airborne then inhalation.	Low	Medium	Low	Haulage and transfer operations have the potential to generate dusts from off-site movements during prolonged dry periods.	All controls will be in accordance with the OP and DEMP.	Low
		Nuisance – deposit on cars, homes, clothing etc.	Airborne then deposit.	Very Low	Low	Very Low			
To Controlled Waters									
Run-off from site surfaces or spillages.	All runoff will be contained within the void of the site. New Fleet Drain South drain and Knottingley and Goole Canal located situated circa 550 m and 590 m south respectively.	Passive leaching to ground or existing land drains, from contamination or spillages on hardstanding surface and directly entering drainage system.	Land then surface water drainage systems.	Medium	High	Medium	Permitted waste types do not include leachates, liquids or sludge. No point source emissions from operations or site activities. Site runoff will discharge via soakaway within approve drainage design.	Controls on types of wastes accepted. Only non-putrescible, waste streams accepted. Reactive hazardous wastes or wastes in liquid form are not permitted. All fuel storage areas will be bunded to 110 % capacity. Spill kits will be provided on site. Inspection and management regime as per OP.	Low

Hazard	Receptors	Harm	Pathway	Probability of Exposure	Consequence	Magnitude	Justification	Risk Management	Residual Risk
								All staff and operatives will be trained as per pollution prevention requirements.	
Run-off and infiltration from site surfaces or spillages.	Potentially isolated and localised groundwater underlying site.	Pollution to aquifer.	Land infiltration through free draining hardstanding.	Medium	High	Low	Permitted wastes unlikely to contaminate groundwater.	Controls on types of wastes accepted. All fuel storage, areas will be bunded to 110 % capacity. All staff and operatives will be trained as per pollution prevention requirements. Underlying low permeability cell liner to prevent infiltration to underlying groundwater.	Low
Mud and litter									
Litter from landfilling and mud from site operation.	Humans (as per odour) and fauna.	Nuisance, loss of amenity and reduced safety.	Air and land.	Low	Medium	Low	Permitted wastes have low litter potential as waste is mainly C&D origin. All vehicle deliveries and dispatch, site operations on impermeable concrete slab. Site is accessed from a asphalt/tarmacadam haul road.	All visible litter on site boundaries will be cleared as soon as practicable. Internal and external haulage routes will be maintained by mechanical sweeping to ensure mud is not generated. Inspection and corrective action regime will be undertaken in line with site management system. Emissions from mud to be managed in line with the DEMP.	Low
Pests and vermin									
Landfilling of waste attracting pests and vermin.	Human	Can cause increase populations and	Air transport and overland.	Low	Low	Low	Permitted waste has low to negligible organic content.	As per OP. Management and control on wastes accepted.	Low

Hazard	Receptors	Harm	Pathway	Probability of Exposure	Consequence	Magnitude	Justification	Risk Management	Residual Risk
		infestations of rats, mice, flies and other vermin. Result is harm to health, loss of amenity and nuisance.					No putrescible waste. Very low potential to attract pests and vermin.	Pest controlled to implement measures, around the feedstock area, despite low potential. Inspection of site by Site Manager on frequent basis. Implementation of controls as required.	

Table 4. Foreseeable Accident risk assessment and management

Hazard	Receptors	Harm	Pathway	Probability of Exposure	Consequence	Magnitude	Justification	Risk Management	Residual Risk
Fire (accidental, arson) and smoke.	Humans (as per odour) and environment.	Damage and loss of amenity, nuisance and carcinogenic particulates.	Direct contact, airborne.	Low	Severe	Medium	In the event of major incident there is a serious health risk.	No wastes will be burned on site. All storage of plant in accordance with OP and the maintenance plan. The site layout aims to permit ready access by fire vehicles. The management of the waste has been developed in line with industry guidance to minimise volumes to manageable sizes. In the event of fire, controls specified in the Health & Safety Plan, the FPP and the fire service notified. Incidents recorded in the Site Diary.	Low
Spillage of fuels, oils or polluting material.	Soil, surface waters and groundwater.	Pollution and/or contamination.	Land and drainage systems.	Low	High	Medium	Oils and fuels will be locked in a sealed container, when not in use. No reactive hazardous or liquid wastes will be accepted on site.	The Site Emergency Plan will incorporate spillage controls. All fuel storage, areas will be bunded to 110 % capacity. Spill kits will be maintained on site. All staff will be trained on controls.	Low
Spillage of waste.	Human health (as per odour), surface water drainage, groundwater.	Loss of amenity and nuisance, pollution and/ or contamination.	Land, drain and air.	Low	High	Medium	Uncontrolled release could cause health or pollution issues.	All vehicles accessing the site will be sheeted or fully enclosed. Unloading and loading will be controlled at all times.	Low

Hazard	Receptors	Harm	Pathway	Probability of Exposure	Consequence	Magnitude	Justification	Risk Management	Residual Risk
							No hazardous or liquid wastes will be accepted on site.	Incidents recorded in the Site Diary.	
Direct physical contact between humans and all wastes, machinery and vehicles.	Human health (site operatives and local population).	Bodily harm.	Direct contact.	Medium	High	Medium	Permitted wastes do not include hazardous waste. No public access during works.	Activities to be managed in accordance with site health and safety management system. Access to wastes to be restricted to trained and competent personnel. Delineation of activities and personnel.	Low

Table 5. Assessment of ground gas risks

Hazard	Receptors	Harm	Pathway	Hazard Receptor Significance	Likelihood of Hazard Receptor Linkage	Magnitude	Justification	Risk Management	Residual Risk
Inhalation of ground gases generated by the inert soils from proposed earthworks. Inhalation of volatile vapours with elevated concentration of determinants. Explosive risk from biogas/ground gases.	On site land users (proposed recreational/amenity) Temporary construction staff.	Intoxication Explosion	Emissions from ground (through landfill waste and/or adjacent sand/gravels) to air.	Severe	Negligible	Very Low	The proposed import is of mineral wastes only. There are no organics to be imported. As such, no significant methane will be generated by the breakdown in the soils. Some CO_2 may develop within the imported fill due to microbial activity, but it will passively release from the soils and rapidly disperse. Any methane and CO_2 will passively release from the surface of the above ground deposit and not accumulate. The soils will not pose a risk to the recreational users of the site.	Waste acceptance procedures to ensure material is of low organic content. Waste acceptance procedures will be in accordance with the OP. Landfill gas risk assessment will be implemented at the site.	Very Low
	Off-site land users (residential, commercial and agricultural)	Intoxication Explosion	Emissions from ground building up to air	Severe	Negligible	Low	As above. Any gas generation is very unlikely. In the event it did migrate from the soils it could laterally or vertically emerge from the ground and dissipate. There is no direct pathway for it to enter nearby properties and enclosures. Hence, there is no viable pathway and risk is negligible. The proposed landfilled	As above.	Very Low

							waste has been assessed in the Stability Risk Assessment.		