

Risk Assessment 203381/H1ERA Revision A

Table 1. Assessment of odour risks

Hazard	Receptors	Harm	Pathway	Probability of Exposure	Consequence	Magnitude	Justification	Risk Management	Residual Risk
<p>Odour from inert and non-hazardous soil wastes. Fugitive emissions from:</p> <ul style="list-style-type: none"> • Storage activities • Transfer and delivery activities • Soil washing plant 	<p>Residential receptors east of Allende Way</p> <p>Adjacent industrial premises</p> <p>General public using Allende Way</p>	<p>Nuisance, harm to health and loss of amenity value.</p>	<p>Atmospheric (fugitive). Air transport then inhalation.</p>	<p>Low</p>	<p>Medium</p>	<p>Low</p>	<p>Waste types being imported will predominantly be from construction and demolition sites and will not include odour generating wastes (putrescible waste). The waste types are consistent with the permitted EWC's in Schedule 2 of the Permit</p>	<p>Strict waste acceptance procedures and controls on the type of waste streams accepted. No other permitted waste types are to be accepted, therefore will not biodegrade to produce offensive odours.</p> <p>Recording any complaints and implementing controls, as outlined in the Operational Plan.</p> <p>If wastes become odorous during storage, they shall be covered with other wastes, or treated as a priority to prevent adverse impacts</p>	<p>Low</p>

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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, storage and treatment of waste.	Residential receptors east of Allende Way Adjacent industrial premises General public using Allende Way Protected Species (European Water Vole) Local Wildlife Sites	Levels of noise that cause loss of amenity and nuisance to users and residents in the locale.	Airborne	Low	Medium	Low	<p>The risk of noise to impact receptors beyond the site boundary is low. There is no history of noise complaint since operation of the soil washing facility.</p> <p>Noise emissions have not be raised as an impact to address during consultation with the local Environment Agency Officer</p> <p>Works will adhere to normal operating hours.</p> <p>The noise profile remains consistent with existing operations.</p>	<p>All operatives inducted on the requirement to reduce noise emissions and adherence to the site OP.</p> <p>Fixed plant is powered by electrical motors. All plant and vehicles will meet current guidance and will be maintained in line with manufacturer's requirements.</p> <p>The site boundary is formed of a create and/or steel cladding that has a noise abating impact. No residential properties have line of site to the ground level operations on site.</p> <p>The elevated filter press is enclosed within a housing formed of steel cladding.</p> <p>All equipment and vehicles, when not in regular use, shall be switched off.</p>	Low

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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									
Particulates and NO ₂ from on and off-site vehicle operations, storage, handling, treatment of waste and haul roads.	Residential receptors east of Allende Way	Harm to human health, respiratory irritation and illness.	Airborne then inhalation.	Low	Medium	Low	Operations have the potential to generate dusts if control measures are not applied/fail	Implementing controls in accordance with the OP and FEP	Low
	Adjacent industrial premises	Nuisance – deposit on cars, homes, clothing etc.	Airborne then deposit.	Low	Low	Low	The soil washing process is an inherently wet process. The risk of dust emissions comes from vehicle movements and material handling/storage.	Road sweeper is based on site and used frequently to remove mud and dust from internal and external roads	
General public using Allende Way	Vehicles to be manually washed if road sweeper ineffective								
Protected Species (European Water Vole)	A dust suppression system is operated on site with particular focus on stored materials and the internal access roads								
Local Wildlife Sites	The site has elevated perimeter walls and a canopy above most storage bays to intercept dusts that may become air-borne								
							Fixed plant is powered by electrical motors. All plant and vehicles will meet current guidance and will be maintained in line with manufacturer's requirements.		
							All equipment and vehicles, when not in regular use, shall be switched off.		

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Hazard	Receptors	Harm	Pathway	Probability of Exposure	Consequence	Magnitude	Justification	Risk Management	Residual Risk
To Controlled Waters									
Run-off from site surfaces or spillages.	<p>Surface water drain south of Darnall Road</p> <p>Combined sewer network on Allende Way and Darnall Road</p> <p>Protected Species (European Water Vole)</p> <p>Local Wildlife Sites</p>	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	Low	Medium	Low	<p>The entire permit area has a sealed concrete surface and a closed loop drainage system.</p> <p>All water is intercepted within chambers on site and used within the waste process</p> <p>Permitted waste types do not include leachates or liquids</p>	<p>Fully sealed and enclosed drainage system</p> <p>All operations undertaken on sealed surfacing in accordance with the OP.</p> <p>The condition of the surface and drainage system will be inspected on a daily basis and repairs arranged asap. Temporary measures will be undertaken as required to prevent surface water run-off.</p> <p>Water in the surface water interceptor chambers will be maintained at a low level to ensure maximum capacity in the event of heavy rain.</p> <p>Controls on types of wastes accepted. Limited volumes of waste will be placed in the feedstock area- waste is processed quickly.</p> <p>No fuel/oil storage in the permit area- all fuel stored by the Operator in the adjacent area will be banded to 110 % capacity. Spill kits will be provided on site.</p> <p>Plant and vehicles maintained by the Operator in good condition and subject to daily checks by the driver</p>	Low

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Hazard	Receptors	Harm	Pathway	Probability of Exposure	Consequence	Magnitude	Justification	Risk Management	Residual Risk
								<p>Inspection and management regime as per OP.</p> <p>All staff and operatives will be trained as per pollution prevention requirements.</p>	
Run-off and infiltration from site surfaces or spillages.	Potentially isolated and localised groundwater underlying site.	Pollution of groundwater	<p>Surface water run-off then percolation to groundwater through unsealed surfaces</p> <p>Percolation to groundwater through damage to the sealed system</p>	Low	Medium	Low	<p>The entire permit area has a sealed concrete surface and a closed loop drainage system.</p> <p>All water is intercepted within chambers on site and used within the waste process</p> <p>Permitted waste types do not include leachates or liquids or wastes that could biodegrade to produce such liquids.</p>	<p>All operations undertaken on sealed surfacing in accordance with the OP.</p> <p>The condition of the surface and drainage system will be inspected on a daily basis and repairs arranged asap. Temporary measures will be undertaken as required to prevent surface water run-off.</p> <p>Water in the surface water interceptor chambers will be maintained at a low level to ensure maximum capacity in the event of heavy rain</p> <p>Controls on types of wastes accepted. Limited volumes of waste will be placed in the feedstock area- waste is processed quickly.</p> <p>No fuel/oil storage in the permit area- all fuel stored by the Operator in the adjacent area will be banded to 110 % capacity. Spill kits will be provided on site.</p>	Low

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								<p>Plant and vehicles maintained by the Operator in good condition and subject to daily checks by the driver</p> <p>Inspection and management regime as per OP.</p> <p>All staff and operatives will be trained as per pollution prevention requirements.</p>	
Mud and litter									
Litter from storage areas and mud from site operation.	<p>Residential receptors east of Allende Way</p> <p>Adjacent industrial premises</p> <p>General public using Allende Way</p> <p>Fauna</p> <p>Protected Species (European Water Vole)</p> <p>Local Wildlife Sites</p>	Nuisance, loss of amenity and reduced safety.	Air and land.	Low	Medium	Low	<p>Roadsweeper based on site and used on a daily basis. Frequency increased if necessary.</p> <p>Permitted wastes have low litter potential as waste is C&D in origin.</p> <p>All operations undertaken on impermeable surfacing.</p>	<p>All visible litter on site boundaries will be cleared as soon as practicable.</p> <p>Internal and external haulage routes will be maintained by mechanical sweeping to ensure mud and dust is removed.</p> <p>Inspection and corrective action regime will be undertaken in line with FEP and site management system.</p>	Low
Pests and vermin									
Storage of waste attracting pests and vermin.	<p>Residential receptors east of Allende Way</p> <p>Adjacent industrial premises</p> <p>General public using Allende Way</p>	Can cause increase populations and infestations of rats, mice, flies and other vermin.	Air transport and over land.	Low	Low	Low	All of the waste has low to negligible risk of organic / litter content to attract pests and vermin.	<p>As per OP for management and control on wastes accepted.</p> <p>Daily inspection by Site Manager. Implementation of controls as required.</p>	Low

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	Protected Species (European Water Vole) Local Wildlife Sites	Result is harm to health, loss of amenity and nuisance.							

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Table 4. Unforeseeable 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. Protected Species (European Water Vole) Local Wildlife Sites	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. Wastes are non-combustible soils and stored recovered materials/ residual wastes only. Waste is damp from processing	No wastes will be burned on site. All storage of waste and plant in accordance with OP and the maintenance plan. The site layout aims to permit ready access by fire vehicles. Fuel/oil storage is outwith the permitted area and stored in accordance with Control of Pollution (Oil Storage) Regs Incidents to be 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. COSHH storage / refuelling will be undertaken outside of the permit area	The site has a fully enclosed drainage system. In case of spillage, measures will be taken (ie, using sandbags/ soil bunds/ absorptive materials) to prevent drainage to collection chambers. Water is directed through a petrol/oil interceptor before drainage to the collection chambers. The interceptor will be regularly inspected and cleared as necessary. Potentially contaminated stored water will not be used in the process before testing to confirm suitability.	Low

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Hazard	Receptors	Harm	Pathway	Probability of Exposure	Consequence	Magnitude	Justification	Risk Management	Residual Risk
								<p>Contaminated materials will be collected, removed to an appropriate facility and the area cleaned.</p> <p>The Site Emergency Plan will incorporate spillage controls.</p> <p>Fuel/oil storage is outwith the permitted area and stored in accordance with Control of Pollution (Oil Storage) Regs</p> <p>Spill kits will be maintained on site.</p> <p>All staff will be trained on controls.</p>	
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.	<p>All vehicles accessing the site will be sheeted or fully enclosed.</p> <p>Unloading and loading will be controlled at all times.</p> <p>Incidents recorded in the Site Diary.</p>	Low
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	No public access during works.	<p>Activities to be managed in accordance with site health and safety management system.</p> <p>Access to wastes to be restricted to trained and competent personnel.</p> <p>Delineation of activities and personnel.</p>	Low