

# Risk Assessment 173144/H1ERA for Durnford Quarry Recycling Facility

**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 soils. Fugitive emissions from:</p> <ul style="list-style-type: none"> <li>Storage activities</li> <li>Physical processing / treatment of waste</li> <li>Manual processing / treatment of waste</li> <li>Transfer and delivery activities.</li> </ul>	<p>Durnford Quarry and Landfill workers directly south</p> <p>ETM SMA workers directly north</p> <p>Users of the BGS Sports Ground 200 m west</p> <p>Users of the Old Bristolians Rugby Football Club 65 m north</p> <p>Users of Long Ashton Golf Club</p> <p>Residents and users of commercial businesses off Beggar Bush Lane</p> <p>Residents 250 and 320 m north of the site along Longwood Lane</p> <p>Public Right of Way 65 m south east</p>	Nuisance and loss of amenity value.	Atmospheric (fugitive). Air transport then inhalation.	Low	Medium	Low	<p>The permitted material types are low-odour and predominantly consist of construction and demolition material.</p> <p>There will be no change to the types of materials accepted at Durnford Quarry SMA.</p>	<p>Strict waste acceptance procedures and controls on the type of waste streams accepted.</p> <p>Any material arriving at site with notable organic odours will be rejected at the gate and returned to the waste producer.</p> <p>Recording any complaints and implementing controls, as outlined in the Standard Operating Procedure (SOP).</p>	Low

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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.	<p>Durnford Quarry and Landfill workers directly south</p> <p>ETM SMA workers directly north</p> <p>Users of the BGS Sports Ground 200 m west</p> <p>Users of the Old Bristolians Rugby Football Club 65 m north</p> <p>Users of Long Ashton Golf Club</p> <p>Residents and users of commercial businesses off Beggar Bush Lane</p> <p>Residents 250 and 320 m north of the site along Longwood Lane</p> <p>Public Right of Way 65 m south east</p> <p>Ashton Court SSSI 650 m west</p>	Levels of noise that cause loss of amenity and nuisance to users and residents in the locale.	Airborne	Low	Medium	Low	<p>The site activities occur in a wider mineral and quarried stone processing and storage area. The noise profile is consistent with existing surrounding activities.</p> <p>Other neighbouring land uses are recreational and commercial.</p> <p>The risk of noise to impact receptors beyond the site boundary is low. No noise complaints have been received within the last 10 years of operation.</p> <p>Works will adhere to normal operating hours and is well screened by the existing quarry void.</p>	<p>All operatives inducted on the requirement to reduce noise emissions and adherence to the site Standard Operating Procedure (SOP).</p> <p>All plant and vehicles will meet current guidance and will be maintained in line with manufacturer's requirements.</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
<b>To Air</b>									
Dust from vehicle operations from external haul roads.  Dust from operations, storage, handling and treatment of waste streams.	The surrounding land is predominantly agricultural, commercial and industrial (quarry and landfill activities).  Longwood Lane directly east adjacent, and  Users of the Old Bristolians Rugby Football Club 65 m north  Users of Public Right of Way 65 m to the south east  Ashton Court SSSI 650 m west	Harm to human health, respiratory irritation, and illness.	Airborne then inhalation.	Medium	Medium	Low	Operations have the potential to generate dusts from both on and off-site activities. All activities are within open air.	All controls will be in accordance with the Standard Operating Procedure (SOP) and the Dust and Emissions Management Plan (DEMP).	Low to very low
		Nuisance – deposit on cars, homes, clothing etc.	Airborne then deposit.	Very Low	Low	Very Low			
		Harm to plant and animal health.	Airborne then inhalation.	Low	Medium	Low			
<b>To Controlled Waters</b>									
Run-off from site surfaces or spillages.	Neighbouring or nearby surface waters (ponds, ditches, lagoons, rivers etc..)  An unnamed brook in the southwest of the site.  The Ashton Brook circa 1.34km to the south east	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	Low	Medium	The site operations are undertaken over free-draining strata. There are limited neighbouring or nearby surface water features due to the free-draining nature of the limestone strata and the elevation of the area.  No point source emissions from operations or site activities.	Controls on types of wastes accepted. Waste will be placed within the appropriate designated site area.  All fuel storage areas will be banded to 110 % capacity. Spill kits will be provided on site.  Inspection and management regime as per SOP.	Very low

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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.	Principal aquifer underlying site.	Pollution to aquifer.	Land infiltration through free draining hardstanding.	Medium	High	Medium	<p>The site operations are undertaken over free-draining strata. There is no change to this to existing permitted activity.</p> <p>No point source emissions from operations or site activities.</p> <p>Clean roof runoff will be kept separate and discharge to a sealed soakaway.</p>	<p>Controls on types of wastes accepted and placed on site.</p> <p>Controls on fuel storage will be implemented in line with the Standard Operating Procedure (SOP).</p> <p>All staff and operatives will be trained as per pollution prevention requirements.</p>	Low to very low
<b>Mud and litter</b>									
Litter from storage areas 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 from construction and demolition.	<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 is not generated.</p> <p>Inspection and corrective action regime will be undertaken in line with site management system.</p>	Low
<b>Pests and vermin</b>									
Storage of waste attracting pests and vermin.	Human	Can cause increase populations and infestations of rats, mice, flies and other vermin.	Air transport and overland.	Low	Low	Low	Permitted waste has low organic content.	Controls are outlined in the Standard Operating Procedure (SOP).	Low

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Hazard	Receptors	Harm	Pathway	Probability of Exposure	Consequence	Magnitude	Justification	Risk Management	Residual Risk
		Result is harm to health, loss of amenity and nuisance.							

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**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	<p>In the event of major incident there is a serious health risk.</p> <p>The materials are high in moisture content and are non-combustible.</p> <p>The risk is low given the volumes.</p>	<p>No wastes will be burned on site.</p> <p>All storage of waste and plant in accordance with the maintenance plan.</p> <p>The site layout aims to permit ready access by fire vehicles.</p> <p>The management of the waste has been developed in line with industry guidance to minimise volumes to manageable sizes.</p> <p>Incidents recorded in the Site Diary.</p>	Low
Spillage of fuels, oils or polluting material.	Soil, surface waters and groundwater.	Pollution and/or contamination.	Land and drainage systems.	Low	High	Medium	<p>Oils and fuels will be locked in a sealed container, when not in use.</p>	<p>The Site Emergency Plan will incorporate spillage controls.</p> <p>Controls are outlined in the Spill Response Plan.</p> <p>Spill kits will be maintained on site.</p> <p>All staff will be trained on controls.</p>	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	<p>Uncontrolled release could cause health or pollution issues.</p>	<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

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Hazard	Receptors	Harm	Pathway	Probability of Exposure	Consequence	Magnitude	Justification	Risk Management	Residual Risk
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