Table 1. Assessment of odour risks

Hazard	Receptors	Harm	Pathway	Probability of Exposure	Consequence	Magnitude	Justification	Risk Management	Residual Risk
Odour from waste streams, their storage and handling on site. Fugitive emissions possible from haulage, waste acceptance, soil wash plant activities, crushing and screening.	Operatives at the directly adjacent Quarry and Landfill. Operatives at the site. Residential receptors - residents of Heath and Reach, residents along Gig Lane and Overend Green Lane. Users of the PRoW. Users of the public highways. Users of the environmental receptors – priority habitats and woodlands. Children and employees at the schools.	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 and demolition sites and will not include odour generating wastes (putrescible waste). There are no permitted putrescible waste streams.	Controls on the type of waste streams accepted, and implementation of the waste acceptance procedures. Emissions should be free from odour. Recording any complaints and implementing odour management controls outlined in the Operational Plan (213461/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 and waste acceptance, and soil wash plant activities including crushing and screening.	Operatives at the directly adjacent Quarry and Landfill. Operatives at the site. Residential receptors - residents of Heath and Reach, residents along Gig Lane and Overend Green Lane. Users of the PRoW. Users of the public highways. Users of the environmental receptors – priority habitats and woodlands. Children and employees at the schools. Animals associated with nearby agricultural fields, or those used for natural maintenance of public open space.	Levels of noise that cause loss of amenity and nuisance to users and residents in the locale.	Airborne	Medium	Medium	Medium	With context of the historic land use, it is anticipated that the work will not cause significant or adverse impact to the surrounding area. The soil wash plant is located at the centre of the quarry, below ground level from the surrounding area. The wash plant operations will cease and be surrendered prior to landfilling and restoration in the area. The site activities occur in an area of mixed residential, agricultural, commercial and industrial land use. The wider area historically and currently contains permitted landfill and quarry activities.	The risk has been assessed in the completion of a Noise Impact Assessment in line with BS4142 and a site specific Noise Management Plan (213461/NMP). Operational controls for the management of noise and vibration outlined in the NMP will be implemented.	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 release from • Haulage of waste on the public highways as well as on internal haul routes • Handling and storage of waste streams and materials • Processing of waste streams using the crusher and screening • Processing of waste streams using the soil wash plant	Operatives at the directly adjacent Quarry and Landfill. Operatives at the site. Residential receptors - residents of Heath and Reach, residents along Gig Lane and Overend Green Lane. Users of the PRoW. Users of the public highways. Users of the environmental receptors – priority habitats and woodlands. Children and employees at the schools.	Harm to human and animal health, respiratory irritation and illness.	Airborne then inhalation.	Low	Medium	Low	The soil wash plant is a predominantly wet operation with a low dust risk. The dust risk arises during the loading of waste in the hopper, and from intermittent crushing and screening operations. The soil wash plant is located below the surrounding ground level within the quarry void. The soil wash plant operations will be ceased and the area surrendered prior to landfilling and restoration phases. The wind direction is predominantly from the south west, which puts the residential receptors off Overhead Green Lane, users of the PRoW and agricultural fields the most sensitive receptors.	Operational controls for the management of dust and vibration outlined in the Dust and Emissions Management Plan (213461/DEMP) will be implemented.	Low
		Nuisance – deposit on cars, homes, clothing etc.	Airborne then deposit.	Low	Medium	Low			
To Controlled Waters									
Run-off from site surfaces or spillages.	On-site surface water lagoons which are re-used on-site.	Passive leaching of surface water runoff or spilled substance either onto the free-draining surface or over hardstanding.	Land then surface water drainage systems.	Medium	High	Medium	No point source emissions from operations or site activities. The activity operational area is lined with impermeable concrete hardstanding. Surface water runoff from the soil	Implementation of the Waste Acceptance Procedure – only non-hazardous and inert waste streams are permitted. The integrity of the impermeable hardstanding will be	Low

Hazard	Receptors	Harm	Pathway	Probability of Exposure	Consequence	Magnitude	Justification	Risk Management	Residual Risk
							wash plant will be contained in a series of lined ponds.	inspected and maintained in line with the OP. Permitted waste types do not include hazardous, sludge, liquid or leachate waste types. All fuel storage, areas will be bunded to 110 % capacity. Spill kits will be provided on site. All bund side walls and bases will be impermeable. All refuelling will be undertaken on impermeable surfaces. All staff and operatives will be trained as per pollution prevention requirements as per Spill Response Plan. Controls and procedure for spills are detailed in the Spill Response Plan.	
Run-off and infiltration from site surfaces or spillages.	Principal Aquifer in the Woburn Sands underlying the site.	Pollution to aquifer.	Land infiltration through free draining hardstanding.	Medium	High	Low	Permitted wastes unlikely to contaminate groundwater. The activity area is on an impermeable concrete barrier, with surface waters being collected in lined ponds.		Low
Spillage of fuels, oils or polluting material.	Soil, surface waters and groundwater.	Pollution and/or contamination of water bodies and soil.	Land and drainage systems.	Low	High	Medium	Plant will be stored on impermeable hardstanding with a sealed drainage system when being re-fuelled or when not in use. Oils and fuels will be locked in a sealed container, when not in use. No hazardous or liquid wastes will be accepted on site.		Low
Mud and Litter									
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 streams are of low litter potential - waste streams are inert and non-hazardous predominantly mineral based wastes. Site is accessed from a public highway.	The site will be inspected daily for litter. Litter picking and associated controlled implemented as necessary. Internal and external haulage routes will be maintained by mechanical sweeping to ensure mud is not generated.	Low

Hazard	Receptors	Harm	Pathway	Probability of Exposure	Consequence	Magnitude	Justification	Risk Management	Residual Risk
								Inspection and corrective action regime will be undertaken in line with site management system.	
Pests and Vermin									
Waste attracting pests and vermin.	Human receptors (as per odour)	Can cause increase populations and infestations of rats, mice, flies and other vermin. Result is harm to health, loss of amenity and nuisance.	Air transport and overland.	Low	Low	Low	Permitted waste has low to negligible organic content. No putrescible waste. Very low potential to attract pests and vermin.	The waste acceptance procedure specifies the control on wastes accepted at the site. Operational controls for the management of litter and waste acceptance procedure outlined in the Operational Plan (213461/OP/SWP) will be implemented.	Low