Receptors:
Residential-200m SW, 300m E, 700m W.
Commercial- 260m W, 560m E.
Schools- 600m and 850m E, 1.2km NW.
Industrial- 875m NW.

Data and information				Judgement				Action (by permitting)	
Receptor	Source	Harm	Pathway	Probability of exposure	Consequence	Magnitude of risk	Justification for magnitude	Risk management	Residual risk
What is at risk? What do I wish to protect?	What is the agent or process with potential to cause harm?	What are the harmful consequences if things go wrong?	How might the receptor come into contact with the source?	How likely is this contact?	How severe will the consequences be if this occurs?	What is the overall magnitude of the risk?	On what did I base my judgement?	How can I best manage the risk to reduce the magnitude?	What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment)

Local human population	Releases of particulate matter (dusts) and micro-organisms (bioaerosols).	Harm to human health - respiratory irritation and illness.	Air transport then inhalation.	High	Medium	**High**	Permitted waste types are inert and do not include dusts, powders or loose fibres and have a low potential to produce bioaerosols, but the treatment activities will produce particulate matter so a high magnitude risk is estimated. There is potential for exposure if anyone is living or working close to the site (apart from the operator and employees). There is potential for increased dust generation from permitted activities during prolonged dry periods e.g. summer months and windy weather.	Prevailing wind direction is south west predominantly throughout the year. Reduces probability of exposure to schools and indusatrial areas. Delay tipping of inert material when very windy and follow dust emissions management plan. The site is not located within an AQMA designated for PM10.	Low
Local human population	As above	Nuisance - dust on cars, clothing etc.	Air transport then deposition	High	Low	**Medium**	As above. Local residents often sensitive to dust.	As above	Low
Local human population, livestock and wildlife.	Litter	Nuisance, loss of amenity and harm to animal health	Air transport then deposition	Low	Low	**Low**	Local residents often sensitive to litter, however permitted waste types have low litter potential.	As above. Appropriate measures could include clearing litter arising from the activities from affected areas outside the site.	Very low

Local human population Residential-200m SW, 300m E, 700m W. Commercial- 260m W, 560m E. Schools- 600m and 850m E, 1.2km NW. Industrial- 875m NW	Waste, litter and mud on local roads	Nuisance, loss of amenity, road traffic accidents.	Vehicles entering and leaving site.	Medium	Medium	**Medium**	Road safety, local residents often sensitive to mud on roads.	As above. Appropriate measures could include clearing waste, litter and mud arising from the activities from affected areas outside the site.	Low
Local human population	Odour	Nuisance, loss of amenity	Air transport then inhalation.	Low	Low	**Low**	Local residents often sensitive to odour, however permitted waste types have low odour potential.	Controlled by waste acceptance procedures. Check for odour, visual checks. Prevailing wind is SW predominantly throughout the year so reduces probability of exposure to Schools, Industrial and Commercial.	Very low
Local human population	Noise and vibration	Nuisance, loss of amenity, loss of sleep.	Noise through the air and vibration through the ground.	Medium	Medium	**Medium**	Local residents often sensitive to noise and vibration	Vehicle movements closely monitored.	Low
Local human population	Scavenging animals and scavenging birds	Harm to human health - from waste carried off site and faeces. Nuisance and loss of amenity.	Air transport and over land	Low	Medium	**Low**	Permitted wastes unlikely to attract scavenging animals and birds but may become nesting / breeding sites.	Controlled by waste acceptance procedures- visual checks.	Very low

Local human population	Pests (e.g. flies)	Harm to human health, nuisance, loss of amenity	Air transport and over land	Low	Medium	**Low**	Permitted waste types unlikely to attract pests.	As above	Very low
Local human population and local environment	Flooding of site	If waste is washed off site it may contaminate buildings / gardens / natural habitats downstream.	Flood waters	Medium	Medium	**Low**	Permitted waste types are inert so any waste washed off site will add to the volume of the local post-flood clean up workload, rather than the hazard.	Management system identifies and minimises the risk of pollution including those arising from operations, maintenance, accidents, incidents, non-conformances. Flood risk assessment completed 2022- identifies risk of gorundwater flooding and from pluvial sources is low. Wash plant does not increase surface runoff.	Low
Local human population and / or livestock after gaining unauthorised access to the waste operation	All on-site hazards: wastes; machinery and vehicles.	Bodily injury	Direct physical contact	Medium	Low	**Low**	Permitted waste types are inert therefore only a low magnitude risk is estimated	Activities shall be managed and operated in accordance with the management system (will include site security measures to prevent unauthorised access).	Low

Local human population and local environment.	Arson and / or vandalism causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff, firefighters or arsonists/vandals. Pollution of water or land.	Air transport of smoke. Spillages and contaminated firewater by direct run-off from site and via surface water drains and ditches.	Medium	Low	**Low**	Permitted waste types do not include sludges or liquids and are inert, so only a low magnitude risk is estimated.	As above. Management system will include fire and spillages.	Low
Local human population and local environment	Accidental fire causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff or firefighters. Pollution of water or land.	As above.	Low	Low	**Low**	As above.	As above (excluding comments on access to waste). Permitted activities do not include the burning of waste.	Low
All surface waters close to and downstream of site.	Spillage of liquids, leachate from waste, contaminated rainwater run-off from waste e.g. containing suspended solids.	Acute effects: oxygen depletion, fish kill and algal blooms	Direct run-off from site across ground surface, via surface water drains, ditches etc.	Low	Low	**Low**	Permitted waste types do not include sludges or liquids so only a medium magnitude risk is estimated. There is potential for contaminated rainwater run-off from wastes stored outside buildings especially during heavy rain.	All liquids shall be provided with secondary containment.... (applies to non- wastes such as fuels). Storage and treatment on an impermeable surface with sealed drainage or on hard standing. Waste accepted on site is non-hazardous.	Low
All surface waters close to and downstream of site.	As above	Chronic effects: deterioration of water quality	As above. Indirect run-off via the soil layer	Low	Low	**Low**	Waste types are non-hazardous and inert so harm is likely to be temporary and reversible.	As above	Very low

Abstraction from watercourse downstream of facility (for agricultural or potable use).	As above	Acute effects, closure of abstraction intakes.	Direct run-off from site across ground surface, via surface water drains, ditches etc. then abstraction.	Low	Low	**Low**	Watercourse must have medium / high flow for abstraction to be permitted, which will dilute contaminated run-off.	As above	Very low
Groundwater	As above	Chronic effects: contamination of groundwater, requiring treatment of water or closure of borehole.	Transport through soil/groundwater then extraction at borehole.	Low	Low	**Low**	Permitted wastes unlikely to contaminate groundwater.	As above	Very low
Cudworth Dike	Suspended solids and biological oxygen demand from the washing of soils/aggregates	Chronic effects: deterioration of water quality	Direct discharge of effluent into Cudworth Dike (storm/flooding conditions only) from wash plant	Low	Low	**Low**	Water treatment facility has interceptor and silt trap before discharging, dilutes any potential contaminated run-off. Waste types are non-hazardous and inert so poses no significant risk.	Effluent discharged from wash plant is sampled when required. Effluent probability of discharging into Cudworth Dyke - Only in storm conditions when wash plant site drainage tank overflow. Goes through interceptor and silt trap first so risk of suspended solids is low.	Low
Local human population	Contaminated waters used for recreational purposes	Harm to human health - skin damage or gastro-intestinal illness.	Direct contact or ingestion	Low	Medium	**Low**	Unlikely to occur, but might restrict recreational use.	Emissions Management Plan for monitoring and sampling.	Very low

Protected sites - European sites and SSSIs Dearne Valley Wetlands- 1000m N, Carlton Marsh- 200m NW	Any	Harm to protected site through toxic contamination, nutrient enrichment, smothering, disturbance, predation etc.	Any	Medium	Medium	**Medium**	Waste operations may cause harm to and deterioration of nature conservation sites.	Waste accepted is non-hazardous and as such poses no significant risk to habitats. In addition, operations will be carried out taking the sensitive nature of the SSSI and Local Wildlife Site into account.	Low

Notes: Yellow columns contain drop down menus that allow automatic evaluation of risk in green column