Environmental Risk Assessment

Bespoke Facility:	Waste Operation: Recycling and storage facility for non hazardous and hazardous waste.
Location:	Site Clear Solutions, Cottonridge House, 12-13 Conduit Road, Norton Canes, Cannock, WS11 9TJ
Location of environmentally sensitive sites (km / m):	Less than 1000m (see below)
Risk assessment carried out by:	Lauren Stanger
Date:	01-Feb-22

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.	Low	Low	**Low**	Permitted waste types do not include dusts, powders or loose fibres but some of the treatment activities may produce particulate matter so a medium magnitude risk is estimated.	Dust supression is to be used on all plant, vehicles and concrete surfaces via hose and jet wash as required. All waste treatment operations are carried out in the enclosed unit building. The site is surfaced entirely with concrete, and enclosing all waste treatment operations indoors and the majority of waste storage under cover significantly reduces the risk of an adverse impact on nearby sensitive receptors including the SSSI, SAC, LWS and Protected Habitats.	Low
Local human population	As above	Nuisance - dust on cars, clothing etc.	Air transport then deposition	Low	Low	**Low**	Local residents mainly comprise of employees in various industrial operations. The nearest domestic residences are some 250m distant.	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 mainly comprise of employees in various industrial operations. The nearest domestic residences are some 250m distant.	Wastes are only processed within the building. Recyclables are baled before they are stored in the external yard. All waste is stored within storage bays, some of which are covered. Site perimeter is of palisade fencing, chain link fencing and firewalls and forms an effective litter barrier. Procedures in the Site Management Plan detail actions to be taken by staff to inspect the site daily and to deal with litter as it arises.	Low
Local human population	Waste, litter and mud on local roads	Nuisance, loss of amenity, road traffic accidents.	Vehicles entering and leaving site.	Low	Low	**Low**	Road safety, local residents mainly comprise of employees in various industrial operations. The nearest domestic residences are some 250m distant.	As above. In addition a sweeper will be empoyed to keep site access roads free from dust/mud as conditions dictate.	Low

Local human population	Odour	Nuisance, loss of amenity	Air transport then inhalation.	Low	Low	**Low**	Permitted waste types do not include food waste, sludges or liquids which are likely to give rise to odour.	Management of odour is controlled by the Odour Management Plan and Environmental Management System. The only waste accepted on site that may produce a potential odour is paint, solvents and resins. Minimal amounts of this waste are stored on site, and when are stored, are within covered bays.	Low
Local human population	Noise and vibration	Nuisance, loss of amenity, loss of sleep.	Noise through the air and vibration through the ground.	Low	Low	**Low**	Local residents mainly comprise of employees in various industrial operations. The nearest domestic residences are some 250m distant. The nature of the operations on site will not result in noise nuisance.	All waste processing takes place within the unit building which will enclose any potential noise from waste treatment activities. The roller shutter doors will be closed as often as is appropriate.	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	Medium	Medium	**Medium**	Permitted waste types do not include food or readily degrable wastes liquids which are likely to provide a home for pests.	Management of pests is controlled by the Environmental Management System. The waste stored on site does not make for a suitable habitat. The use of a specialist pest control sub-contractor if scavenging animals are detected will also mitigate the risk.	Very low
Local human population	Pests (e.g. flies)	Harm to human health, nuisance, loss of amenity	Air transport and over land	Medium	Medium	**Medium**	Permitted waste types do not include food or readily degrable wastes liquids which are likely to provide a home for 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	Low	Medium	**Low**	The site is in a Flood Zone 1. The site has a sealed drainage system that links to the sewer. There is also an ACO drain in front of the roller shutter doors of the unit building.	The sealed drainage system and ACO drain will direct water and runoff from the concrete surface to the linking sewer. In the event of a fire, fire water will be contained by deploying the hydrosnakes and water gate barriers throughout the site. The site drains will also be covered with clay mats. The site will be surfaced entirely with concrete, and with these water containment measures in place, there will be no pollution pathways to neighbouring sensitive receptors including the SSSI, SAC, LWS and Protected Habitats.	Very 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	Medium	**Medium**	Permitted waste types are mostly non-hazardous, however a portion are hazardous so a medium magnitude risk is estimated.	Activities shall be managed and operated in accordance with the Site Management Plan (which includes 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	Medium	**Medium**	Permitted waste types do not include sludges or liquids and are mostly non-hazardous. The portion of hazardous waste accepted on site is dry waste so only a medium magnitude risk is estimated.	As above. Activities will be managed in accordance with the Environmental Management System (which includes fire and spillages) and the Fire Prevention Plan. Spread of fire restricted by control of stock piles and firebreaks or separation distances shall be maintained in accordance with Environment Agency guidance. The building also has a comprehansive fire alarm and automated fire suppression system.	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.	Medium	Medium	**Medium**	Risk of accidental combustion of waste is moderate.	As above. Activities will be managed in accordance with the Environmental Management System (which includes fire and spillages) and the Fire Prevention Plan. Spread of fire restricted by control of stock piles and firebreaks or separation distances shall be maintained in accordance with Environment Agency guidance. The building also has a comprehansive fire alarm and automated fire suppression system.	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.	Medium	Medium	**Medium**	Permitted waste types do not include sludges or liquids so only a medium magnitude risk is estimated.	All liquids on site, such as oils for plant are stored within sealed drums, IBC or ISO steel containers. A spillage control prcedure also forms part of the Environmental Management Plan.	Very 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	Medium	Low	**Low**	Most waste types are non-hazardous so harm is likely to be temporary and reversible. The portion of hazardous waste is contained appropriately.	As above	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	Medium	**Medium**	Watercourse must have medium / high flow for abstraction to be permitted, which will dilute contaminated run-off.	As above.	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	Medium	**Medium**	There is potential for contaminated rainwater run-off or leachate from permitted waste types.	As above. The site is surfaced entirely with concrete and has water containment measures in place that will be strictly adhered to in the event of a fire or flood. The site drains will be covered with clay mats and the water gate barriers and hydrosnakes will be deployed to contain any potentially contaminated water. Therefore, there are no contamination pollution pathways for neighbouring sensitive receptors including the SSSI, SAC, LWS amd Protected Habitats.	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 due to distances involved, but might restrict recreational use in extreme case.	As above, plus procedures in the Environmental Management System will effectively mitigate this risk.	Very low
Protected sites - European sites and SSSIs	Any	Harm to protected site through toxic contamination, nutrient enrichment, smothering, disturbance, predation etc.	Any	Low	Very low	**Low**	The site is situated approximately 877m to the west of the SSSI Chasewater and the Southern Staffordshire Coalfield Heaths, 1km to the north of Cannock Extension Canal SSSI and SAC, 367m to the north of a Local Wildlife Site (LWS) and is immediately adjacent to a Protected Habitats site that is located to the east and south east of the site.	The risk to these protected sites comes from potential pollution and loss of funtionality linked land. The site is not linked hydraulically with any of the protected sites and the surrounding land will not be affected by the enclosed operations proposed. As stated above, site drains will be covered with clay mats, and hydrosnakes and water gate barriers will be deployed in the event of a fire or flood to contain any potentially contaminated water within the concrete surface. These containment methods remove the risk of an adverse impact on the characteristics of the SSSI's, SAC, LWS and protected habitats. Airbourne pollution via dust would be thoereticlaly poissible if all waste processign did not occur enclosed indoors and the stockpiles with the potential to produce dust were not enclosed undercover. However, this is the case as detailed within the Dust & Emissions Management Plan which will be strictly adhered to throughout all operations. Therefore, there are no pratcical pollution pathways for dusts to impact on the identified protected sites.	Very low

Notes: Red triangle indicates comment containing supporting information
Yellow columns contain drop down menus that allow automatic evaluation of risk in green column