

Receptor	Source	Harm	Pathway	Probability of exposure	Consequence	Magnitude of Risk	Justification of Magnitude	Risk Management
Local human population	Releases of particulate matter (dusts) and micro-organisms (bioaerosols).	Harm to human health - respiratory irritation and illness.	Air transport then inhalation.	Medium	High	Medium	Permitted waste types are not hazardous but may include dusts, powders or loose fibres so only a medium 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). The Site is located in a predominantly commercial and industrial area so the probability of exposure is low.	Waste will be delivered to Site in covered trucks. The potential sources of dust and particulates at the site will be associated with vehicle movements, unloading HGVs and reloading rail wagons.  All areas of the Site in which vehicles operate will comprise either a concrete surface or hardstanding surface. The concrete surface and hardstanding at the site will be inspected daily and maintained in a condition consistent with minimising the risk of the generation of airborne dust and particulates.  The concrete surface and hardstanding will be cleaned as necessary using a mechanical road sweeper or manually and, if necessary, will be sprayed with water during periods of dry weather.  A record of all inspections, cleaning and the use of water suppression will be made in the Site Diary.  A Dust Management Plan has been prepared for the EP application.
Local human population	As above	Nuisance - dust on cars, clothing etc.	Air transport then deposition	Low	Low	Low	Local residents and businesses often sensitive to dust. The Site is located in a predominantly commercial and industrial area so impact of dust should be minimal.	As above.
Local human population, livestock and wildlife.	Litter	Nuisance, loss of amenity and harm to animal health	Air transport then deposition	Very Low	Medium	Medium	Local residents often sensitive to litter.	Granular soil wastes and RDF will be accepted at the Site. Granular soil wastes will not contain materials that can generate litter. RDF will be baled and received, stored and exported in sea containers. All wastes do not have the potential to generate litter.  A daily Site inspection will be undertaken to identify any litter and maintain the site in a state of tidiness.
Local human population	Waste 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.	The Site is located in a predominantly commercial and industrial area. The areas of the site in which vehicles operate will comprise either a concrete surface or hardstanding surface. The concrete surface and hardstanding at the site will be inspected daily and maintained in a condition consistent with preventing the accumulation of mud or debris on the public highway. The concrete surface and hardstanding will be cleaned as necessary using a mechanical road sweeper or similar.  A wheelwash and mobile wheel cleaner will be available at the site reception for vehicles existing the Site.  A record of all inspections will be made in the Site Diary.
Local human population	Odour	Nuisance, loss of amenity	Air transport then inhalation.	Medium	Medium	Medium	Local residents often sensitive to odour.	Only wastes which do not have the potential to result in unacceptable odorous emissions will be accepted at the Site. As a matter of good practice strict material management controls for all wastes including coded EWC 19 12 12 will be implemented at the site. Material Management Spreadsheets will be used to control the quantity of all wastes and especially 19 12 12 wastes stored and loaded into rail wagons, and the time over which the 19 12 12 waste will be stored at the site.  All wastes will be loaded on a 'first in, first out' basis. Each Material Management Spreadsheet will cover one week of operation from Monday to Friday. As a minimum, each storage bay will be emptied typically on a weekly basis. In particular, the quantity of 19 12 12 waste that can be accepted to site in any week will be restricted to the quantity of 19 12 12 waste which will be removed from the site in that week.  An Odour Management Plan has been prepared for the EP application.
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	The waste operations at the Site will have the potential to generate noise. The following mitigation measures will be put in place to minimise any potential risk of unacceptable noise:  - Regular maintenance of plant and equipment; - Regular maintenance of roadways and site surfaces; - Site speed limited to 5 mph; - Consideration given to the potential noise levels of all new plant and equipment to the Site; - Limiting idling plant; - White noise reversing alarms will be fitted to all mobile plant; - Considerate use of plant to minimise the scraping and 'knocking' of loading shovels; and - The fitting of noise suppression equipment to items of plant as necessary
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	Medium	Permitted wastes may attract scavenging animals and birds. Pests including birds, vermin, insects and other scavengers can be attracted to sites containing exposed sources of food or as breeding/nesting sites.	Waste types which comprise sources of food will not be accepted at the site hence it is unlikely that pests will be attracted to the site.  The control of pest infestations will be minimised by the use of a pest control contractor who will be employed by Biffa to carry out regular Site inspections and implement suitable control measures such as traps.  Residence times for waste will be monitored and minimised and bays will regularly be empty to limit opportunity for breeding/nesting.
Local human population	Pests (e.g. flies)	Harm to human health, nuisance, loss of amenity	Air transport and over land	Low	Medium	Medium	Insect pests can multiply on permitted wastes, particularly in summer months	As above.
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	Permitted granular types are inert and non-hazardous. Waste washed off the Site will be deposited in open industrial and railway areas to the south.	The Site is not located in an area at risk of flooding.  The Site consists of a sealed concrete/hardstanding surface with a closed drainage system and kerbed edge.  Sea containers with RDF are unlikely to become mobile during flooding.
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 non-hazardous so only a medium magnitude risk is estimated.	The Site will be secure and integrated with the rail network.  The Site will operate up to a 24/7 operation, limiting the opportunity for unauthorised access.  The integrity of the boundary fencing and the site gates will be inspected on a daily basis. Any damage to the boundary fencing or gates will be made secure by the end of the working day of inspection. If it is not possible to make repairs within a working day, temporary measures will be implemented to control unauthorised access to the site.  The site will be monitored by a Closed-Circuit TV (CCTV) system which will be available for inspection on site.

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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 non-hazardous so only a medium magnitude risk is estimated.	As above, plus below  Granular waste are non combustible.  The only combustible waste is baled Refuse Derived Fuel ('RDF'). HGVs will be directed to an unloading area where site mobile plant i.e. reach stacker, will be used to lift the container from the HGV onto the ground or onto another sea container. Sea containers will be stored either in a designated bay or at the eastern or western ends of the Site.  A maximum of 48 full sea containers will be stored in an orderly fashion on the Site at any one time and will be stacked no more than three containers high.  Baled RDF shall be delivered, stored and loaded to rail in locked sea containers. No RDF shall be stored in loose stockpiles or directly in bays. Containers may be opened by the Site Manager and his staff for inspection purposes, but shall be locked at all other times.  A Fire Prevention Plan has been prepared for the Site in respect to the RDF accepted on Site.
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, plus below.  Permitted activities do not include the burning of waste.  There are no sources of ignition near to RDF.
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	Medium	Medium	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.	The Site consists of a concrete surface with kerbed edge and a sealed drainage system.  The sump will be emptied on a regular basis and a record of emptying will be made in the Site Diary. The concrete surface and hardstanding at the site will be inspected daily and maintained in good condition commensurate with the operations at the Site.  Spill kits will be kept at the Site.
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	Waste types are inert and non-hazardous.	As above.
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.	Medium	Medium	Medium	Watercourse must have medium / high flow for abstraction to be permitted, which will dilute contaminated run-off.	The brook to the east drains from the Rippleside Commercial Estate and is low flow.
Groundwater	As above	Chronic effects: contamination of groundwater, requiring treatment of water or closure of borehole.	Transport through soil/groundwater then extraction at borehole.	Medium	Medium	Medium	There is a potential for contaminated rainwater run-off or leachate from permitted waste types.	The Site is not located in an area at risk of flooding.  The site consists of a sealed concrete/hardstanding surface with a closed drainage system and kerbed edge.
Local human population	Contaminated waters used for recreational purposes	Harm to human health - skin damage or gastrointestinal illness.	Direct contact or ingestion	Low	Medium	Low	Unlikely to occur, but might restrict recreational use.	The site consists of a concrete/hardstanding surface with a sealed drainage system, with areas of hard-standing for the storage of inert wastes. The concrete surface has been constructed to drain to a sealed sump. The sump will be emptied on a regular basis and a record of emptying will be made in the Site Diary. The concrete surface and hardstanding at the site will be inspected daily and maintained in good condition commensurate with the operations at the Site.
Protected sites - European sites and SSSIs	Any	Harm to protected site through toxic contamination, nutrient enrichment, smothering, disturbance, predation etc.	Any	Low	Medium	Low	Waste operations may cause harm to and deterioration of nature conservation sites.	No European Sites or SSSIs within 1 km of the Site.
Local human population and all surface waters close to and downstream of site.	Serious Fire	Nuisance, harm to human health, loss of amenity, deterioration of water quality	Air transport then inhalation or deposition. Direct run off of fire water across site to surface waters.	Low	High	Medium	Waste fires are not common but approximately 300 fires per annum are linked to waste activities. Impact on health and amenity can be significant for many days or weeks.	A Fire Prevention Plan which has been submitted alongside the application.  RDF is the only combustible waste accepted at the Site, and is handled wholly within sea containers to control risk.
All surface waters close to and downstream of site.	Serious Fire	Loss of amenity, deterioration of water quality	Direct run off of fire water across site to surface waters.	Low	High	Medium	Waste fires are not common but approximately 300 fires pa linked to waste activities. In event of fire, fire water can be produced for days/ weeks. Contaminated firewater run-off can kill fish and aquatic life.	A Fire Prevention Plan which has been submitted alongside the application.  RDF is the only combustible waste accepted at the Site, and is handled wholly within sea containers to control risk. Sea containers will limit and contain fire and minimise quantity of fire fighting waters managed by the closed drainage system.