

Part 2 Site specific risk assessment for Blandford Waste Management Centre	
Bespoke Facility:	Waste Operation: The proposal is for a waste management centre comprising of 2 elements : a) waste transfer station (WTS) b) household recycling centre (HRC)
Location:	Blandford , Dorset, ST 890 082
Location of environmentally sensitive sites (km / m):	Milldown SNCI 600m to south west of site. SPZ 500m.
Risk assessment carried out by:	Ceri Environmental Consulting Ltd
Date:	19th May 2022

Risk criteria:	
Parameter 1	Permitted activities - The storage and bulking up of waste (D15, R13,D14, D9, R3, R4, R5) and treatment consisting of manual sorting, mechanical sorting, separation, baling, or compaction.(D9,R3, R4,R5).
Parameter 2	Permitted waste types - Non Hazardous as listed in application and limited hazardous waste types such as asbestos and WEEE
Parameter 3	Quantity of waste accepted at the facility: <35,000 tonnes per annum.
Parameter 4	The activities are not carried out within an Air Quality Management Area (AQMA) designated for particulate matter in the form of PM10.
Parameter 5	The activities are not within 1km of a European Site (candidate or Special Area of Conservation, proposed or Special Protection Area or Ramsar site) or a Site of Special Scientific Interest (SSSI).
Parameter 6	The activities will not be within 10 metres of a watercourse
Parameter 7	The maximum quantity of hazardous waste and waste oils (in aggregate) that will be accepted, stored or treated at the site in connection with a disposal operation shall not exceed 10 tonnes per day
Parameter 8	There are no known boreholes for drinking water supplies within 100m of the site
Parameter 9	Less than 5 tonnes of tyres shall be stored at any one time
Parameter 10	The site is underlain by a principal aquifer
Parameter 11	The proposed drainage system extends into zone 1 of SPZ
Parameter 12	The site is in a Flood Zone 1

Data and information				Judgement before mitigation				Action / Mitigation	
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 consequence 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?
Local human population - see receptor list	Releases of particulate matter (dusts) and micro-organisms (bioaerosols).	Harm to human health - respiratory irritation and illness.	Air transport then inhalation.	High	Low	Medium	Treatment activities will produce particulate matter so a high probability risk is estimated and the closest residential property is at 175m. The permitted level of throughput and potential size of the facility means there is potential for exposure to business, commercial and residential receptors close to the site. There is potential for increased dust generation from permitted activities during prolonged dry periods e.g. summer months and during windy weather conditions. However, most receptors are not downwind of the site during prevailing weather conditions.	Main bulking up and loading will take place inside the Barn building which has quick shutting doors and which has a pollution controlled environment. Other waste on site will be stored in containers. Appropriate measures will be taken if dust emissions are present, including, covering waste containers if needed. there are dust control measures on plant and equipment (cleaning) and the yard will be kept clean and swept. The Site will be monitored and activities controlled in accordance with the Environmental Management System (EMS). The frequency of site inspections should be increased if activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions. There will be the retention, protection and enhancement of the existing tree belts and hedgerows which will provide a buffer and help to filter against any potential air quality impacts. All dust and air quality complaints will be recorded and the causes identified. Appropriate remedial action will be taken in a timely manner with a record kept of actions taken including of any additional measures put in-place to avoid reoccurrence.	Low

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Local human population	As above	Nuisance - dust on cars, clothing etc.	Air transport then deposition	High	Low	Medium	As above. Local residents and nearby business may be 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	High	Low	Medium	As above. Local residents sensitive to litter, litter hazard to any livestock nearby.	Main bulking up and transfer activities will take place in the Barn. Waste in HWC will be in containers mainly under a canopy which will help prevent litter emissions. Monitoring and control measures in place in accordance with the EMS. Appropriate measures will include clearing litter arising from the activities from affected areas in and outside of the site.	Low
Local human population	Waste and mud on local roads	Nuisance, loss of amenity, mud on the road	Vehicles entering and leaving site.	Medium	High	High	Road safety makes the consequences high and local residents often sensitive to mud on roads.	All of the site will have surfaced access roads (concrete / tarmac) so there should be very little possibility of mud being created. Monitoring and control measures in place in accordance with the EMS. Appropriate measures will include clearing any mud or other spillage which might arise from the affected areas inside and outside of the site.	Low
Local human population	Odour	Nuisance, loss of amenity	Air transport	High	Medium	High	Local residents and nearby businesses may be sensitive to odour. However, most receptors are not downwind of the site during prevailing weather conditions.	The main storage and bulking areas will be inside the Barn with filtered ventilation and quick closing doors. The waste within the HWC will have very limited storage times, as will the waste stored within the Barn. Odour will be monitored and controlled in accordance with the EMS and the Odour Management Plan.	Low
Local human population	Noise and vibration	Nuisance, loss of amenity, loss of sleep.	Noise through the air and vibration through the ground.	High	Medium	High	Local residents and some nearby businesses may be sensitive to noise and vibration.	Main transfer and bulking up will take place within the Barn which will provide a level of acoustic screening. The site will have limited operational hours and no night working (night times tend to be sensitive times for noise impact on residential receptors) . Noise will be monitored and controlled in accordance with the EMS.	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	High	Medium	High	Permitted wastes likely to attract scavenging animals and birds and the site may become nesting / breeding sites.	Main activities within the Barn building with fast closing doors which will help deter birds. Waste outside Barn will be in containers. Waste storage times are limited which will prevent the waste becoming a breeding site for pests such as rats. Pest monitoring and control measures will be in place in accordance with the EMS.	Low
Local human population	Pests (e.g. flies)	Harm to human health, nuisance, loss of amenity	Air transport and over land	High	Medium	High	Permitted wastes likely to attract scavenging animals and birds and may become nesting / breeding sites.	As above	Low

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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	Low	Low	Flood risk is assessed as zone 1 where the risk of flooding from fluvial and tidal sources is less than 1 in 1000 (0.1%) in any year	Permitted waste types are mainly non hazardous. Hazardous wastes are stored within a building or in containers. All waste stored either in containers or within an enclosed Barn. Therefore, waste not likely to be washed off site. Environmental management system identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances including flood risk management and climate change.	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	High	High	Some limited hazardous waste on site and heavy plant.	Security system is in place (CCTV and anti climb fencing) to deter unauthorised entry in accordance with EMS. In addition Barn closed and locked out of hours. Plant secured out of hours.	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, fire fighters 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	High	High	Permitted waste types include combustible wastes and limited hazardous wastes. There are sensitive receptors nearby.	A written environmental management system is in place which includes a fire plan. Fire detection and suppression systems in place. Spread of fire is restricted by separation of wastes and fire walls. Waste oil has fire suppression deluge system. In addition, there is containment of fire waters and other polluting fluids.	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 fire fighters. Pollution of water or land.	As above.	Medium	High	High	As above.	As above.	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.	Very Low	High	Low	Permitted waste types include non hazardous and a limited range of hazardous wastes so the consequences of a spillage if they did occur could be high. However, as there are no surface waters nearby the probability of a spill reaching a surface water feature is very low so the overall risk magnitude is low.	The site surfaces are concreted in the main operational areas of the site. All run off is contained within a SuDs drainage system designed with pollution control measures in place. Spillage procedures also within EMS. Waste contained within Barn or in containers mainly under canopy.	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 or direct run off via drainage system	Very Low	High	Low	As above	As above	Very low

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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.	Very low	High	Low	As above	As above.	Very low

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Groundwater	As above	Chronic effects: contamination of groundwater, requiring treatment of water or closure of boreholes	Transport through soil/groundwater then extraction at borehole.	High	High	High	Types of waste include limited hazardous and biodegradable and SPZ nearby.	Hydrogeological risk assessment, taking account of worst case scenario, has been undertaken. With SuDs drainage system proposed in place the proposed development is not posing a risk to the aquifer and the groundwater abstractions.	Low
Local human population	Contaminated waters used for recreational purposes	Harm to human health - skin damage or gastrointestinal illness.	Direct contact or ingestion	Very Low	High	Low	Permitted waste types include non hazardous and a limited range of hazardous wastes so the consequences of a spillage if they did occur could be high. However, as there are no surface waters nearby the probability of a spill reaching a surface water feature is very low so the overall risk magnitude is low.	As above	Very low
Milldown Nature Reserve	Any	Harm to protected site/species through toxic contamination, nutrient enrichment, smothering, disturbance, predation, physical encroachment.	Any	Low	Medium	Medium	Waste operations may cause harm to and deterioration of nature conservation sites but Milldown is 600m from site and no direct link with site. In prevailing weather conditions Milldown is not downwind of the site .	There will be no physical encroachment onto the Milldown site and there is no surface water connection between Milldown Nature Reserve and the site. The potential impacts of nutrient enrichment, smothering or toxic contamination could result from dust deposition from waste activities. However, there are appropriate measures for dust controls in place, in accordance with Environmental Management System (EMS). The main bulking up will take place inside the Barn building which has quick shutting doors and an air filtration system. Other waste on site will be stored in containers. Appropriate measures will be taken if dust emissions are present, including, covering waste containers if needed. Dust control measures on plant and equipment and the yard will be employed such as keeping clean and sweeping. The Site will be monitored and the frequency of site inspections will be increased if activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions. There will be the retention, protection and enhancement of the existing tree belts and hedgerows around the WMC which will provide a buffer and help to filter against any potential air quality impacts. All dust and air quality complaints will be recorded and the causes identified. Appropriate remedial action will be taken in a timely manner with a record kept of actions taken including of any additional measures put in-place to avoid reoccurrence. The chances of predation as a result of the site are low as there are pest control measures in place and the site operations take place within an enclosed Barn or within containers with low storage times and therefore the risk of pests using the site for feeding or nesting is low. There is an extremely low risk of the site causing a disturbance to the Milldown Nature Reserve due to the distance to the site and the intervening features such as the A350 and Blandford Forum town.	Low