

Environmental Risk Assessment - risk screening

Facility:	Use of waste in a deposit for recovery operation
Location:	Whetstone Bridge Farm (Case Reference EPR/GB3002MQ/A001)
Risk assessment carried out by:	GWP Consultants LLP
Date:	09-Jul-21

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.	Medium	Medium	Low	Permitted waste is inert and has a low potential to produce bioaerosols, but the activities will produce some particulate matter so a medium magnitude risk is estimated. There is potential for increased dust generation from permitted activities during prolonged dry periods e.g. summer months. Site operations involving placement of imported inert fill material are not in close proximity to residential properties. See Dust Emissions Management Plan in Appendix K of Environmental Permit application.	Implementation of Site Operation procedures to reduce releases in accordance with Environmental Management System (EMS) e.g. dust suppression during dry periods.	Low
Local human population.	As above.	Nuisance - dust on cars, clothing etc.	Air transport then deposition.	Low	Low	Low	As above. Local residents often sensitive to dust. Site is not in close proximity to residential properties. See Dust Emissions Management Plan in Appendix K of Environmental Permit application.	As above	Low

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Local human population, livestock and wildlife.	Litter.	Nuisance, loss of amenity and harm to animal health.	Air transport then deposition	Very low	Very low	Very low	Local residents often sensitive to litter, however permitted waste is inert and has low litter potential. Site is not in close proximity to residential properties.	Implementation of Site Operation procedures and Waste Acceptance Criteria in accordance with EMS.	Very low
Local human population.	Waste, litter and mud on local roads.	Nuisance, loss of amenity, road traffic accidents.	Vehicles entering and leaving site.	Very low	Very low	Very low	Road safety, local residents often sensitive to mud on roads. Permitted waste is inert and has low litter potential.	Implementation of Site Operation procedures and Waste Acceptance Criteria in accordance with EMS.	Very low
Local human population.	Odour.	Nuisance, loss of amenity.	Air transport then inhalation.	Very low	Very low	Very low	Local residents often sensitive to odour, however permitted waste is inert and has low odour potential. Site operations involving placement of imported inert fill material are not in close proximity to residential properties.	Implementation of Site Operation procedures and Waste Acceptance Criteria in accordance with EMS.	Very 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 often sensitive to noise and vibration. Site operations involving placement of imported inert fill material are not in close proximity to residential properties. See Noise Impact Assessment and Management Plan in Appendix L of Environmental Permit application.	Implementation of Site Operation procedures in accordance with 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.	Low	Very low	Very low	Permitted waste is inert and is unlikely to attract scavenging animals and birds but may become nesting / breeding sites. Site operations involving placement of imported inert fill material are not in close proximity to residential properties.	Implementation of Site Operation procedures and Waste Acceptance Criteria in accordance with EMS.	Very low

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Local human population.	Pests (e.g. flies).	Harm to human health, nuisance, loss of amenity.	Air transport and over land.	Low	Very low	Very low	Permitted waste is inert and is 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.	Very low	Very low	Very low	Permitted waste is inert and therefore a very low magnitude risk is estimated. Site EMS ensures that the likelihood of a contamination event is minimised.	Implementation of Site Operation procedures and Waste Acceptance Criteria in accordance with EMS.	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.	Very low	Very low	Very low	Permitted waste is inert and therefore a very low magnitude risk is estimated.	Implementation of Site Operation, Waste Acceptance and Health and Safety procedures in accordance with EMS.	Very 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.	Very low	Very low	Very low	Permitted waste is inert and therefore a very low magnitude risk is estimated.	Implementation of Site Operation, Waste Acceptance, Health and Safety and Accident, Incident and Emergency procedures in accordance with EMS.	Very 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.	Very low	Very low	Very low	As above.	As above. Permitted activities do not include the burning of waste.	Very low

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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	Very low	Very low	Permitted waste is inert and therefore a very low magnitude risk is estimated. Site EMS ensures that the likelihood of a contamination event is minimised.	Implementation of Site Operation, Waste Acceptance, Health and Safety, Accident, Incident and Emergency and Oil / Fuel Spill procedures in accordance with EMS.	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.	Very low	Very low	Very low	As above.	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.	Very low	Very low	Very low	As above.	Implementation of Site Operation, Waste Acceptance, Accident, Incident and Emergency and Oil / Fuel Spill procedures in accordance with EMS.	Very low

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The site lies within a Groundwater Source Protection Zone (Zones 2 and 3).	As above.	Chronic effects: contamination of groundwater, requiring treatment of water or closure of borehole.	Transport through soil/groundwater then extraction at borehole.	Very low	Very low	Very low	The Groundwater Source Protection Zones are associated with the Great Oolite Limestone Group beneath the Oxford Clay Formation and as such are not hydraulically connected to the sand and gravel aquifer around the site. Therefore the risk of work at the site effecting this deeper aquifer is negligible. The site EMS ensures that the likelihood of a contamination event is minimised. See Hydrogeological Risk Assessment Report in Appendix Hiv of the Environmental Permit application.	Implementation of Site Operation, Waste Acceptance, Accident, Incident and Emergency and Oil / Fuel Spill procedures in accordance with EMS.	Very low
Local human population.	Contaminated waters used for recreational purposes.	Harm to human health - skin damage or gastro-intestinal illness.	Direct contact or ingestion.	Very low	Very low	Very low	Permitted waste is inert and therefore a very low magnitude risk is estimated. Site environmental management system (EMS) ensures that the likelihood of a contamination event is minimised. See Hydrogeological Risk Assessment Report in Appendix Hiv of the Environmental Permit application.	Implementation of Site Operation, Waste Acceptance, Accident, Incident and Emergency and Oil / Fuel Spill procedures in accordance with EMS.	Very low
Protected sites - European sites and SSSIs.	Any.	Harm to protected site through toxic contamination, nutrient enrichment, smothering, disturbance, predation etc.	Any.	Very low	Very low	Very low	Proposed work at the site poses a very low risk of impacting the hydrological and hydrogeological environment of protected sites.	Implementation of Site Operation, Waste Acceptance, Accident, Incident and Emergency and Oil / Fuel Spill procedures in accordance with EMS in order to minimise potential for environmental impact.	Very low