

## Environmental Risk Assessment

<b>Facility:</b>	Waste Operation: Household, Commercial and Industrial Waste Transfer Station with treatment
<b>Location:</b>	McFen Plant Ltd, 7C South Crescent, London, E16 4TL
<b>Location of environmentally sensitive sites (km / m):</b>	Less than 500m
<b>Risk assessment carried out by:</b>	Leisl Heath
<b>Date:</b>	03-Feb-25

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	Medium	Low	Permitted waste types do not include dusts, powders or loose fibres but the treatment activities will produce particulate matter, so a medium magnitude risk is estimated. However, the street cleaning residues are already wet and so cannot produce dusts. Processing on site includes the removal of excess water, screening and separating of solids, using the dewatering system (CDE G:MAX). Processed wastes which have become dry after prolonged storage could give rise to dust. Wastes from vacuum excavation arrive to site fully contained, and tipping can be controlled to reduce the speed and drop height. For this reason, the probability of exposure is low.	Drop heights when tipping wastes will be controlled to maintain a slow and steady drop at a low height. The CDE G:MAX is a wet processing system designed for handling solid and liquid waste streams. The system incorporates features to manage water and to minimise material loss. Dust from the wash plant will therefore be low. Additional suppression will be via bowser, mister and hoses as required.	Low

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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.	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 site perimeter is of concrete walls or fencing and forms an effective litter barrier.	Low
Local human population	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 mainly comprise of employees in various industrial operations.	As above. In addition, procedures in the environmental management system details actions to be taken by site staff to inspect the site daily and to deal with waste, litter and mud on local roads. In the event of dust or mud on the local roads, a road sweeper will be used to clear them immediately.	Low

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Local human population	Odour	Nuisance, loss of amenity	Air transport then inhalation.	Low	Medium	Low	The nature of the wastes (construction industry street cleaning residues and vacuum excavation wastes from utility works) means that it is unlikely that odour could become an issue. Permitted wastes do not include food wastes sludges or liquids which are likely to give rise to odours.	Procedures in the environmental management system details actions to be taken by site staff to inspect the site daily and to deal with any odours. In the event of odour, the source will be determined and if from a particular source, then the offending waste will be containerised and removed to a suitably licensed facility as soon as possible. Where odour is persistent, deodorising systems shall be used as necessary.	Low
Local human population	Noise and vibration	Nuisance, loss of amenity, loss of sleep.	Noise through the air and vibration through the ground.	Medium	Low	Low	Local residents mainly comprise of employees in various industrial operations. Closest resident is approximately 337m away from the site operations. The Environmental Management System contains procedures to manage noise emanating from the site operations. The activities carried out on site, including the operation of the CDE G:MAX dewatering plant, are generally low audible volume activities.	Ensure site operations remain fully in accordance with the EMS. Due to the nature of the site and distances involved it is not believed that vibration will be an issue.	Low

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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	Low	Low	Permitted wastes don't attract any animals.	Permitted wastes don't attract any animals	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	Insect pests can multiply on permitted wastes, particularly in summer months	Wastes will be rotated and regularly checked, to ensure that all pests are removed.	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	Very low	Low	Low	Site topography makes flooding a very low risk	Site topography will effectively prevent any large scale flooding of the site	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	Low	Low	Permitted waste types are non-hazardous so only a medium magnitude risk is estimated. The CDE G:MAX dewatering system is equipped with numerous safety features including health and safety compliant walkways, splash guards, an onboard control panel to reduce the need for operators to be near moving parts. Additionally, there is no known livestock in the vicinity of the site.	Activities shall be managed and operated in accordance with the Environmental Management System (which includes the 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.	Low	Medium	Low	Permitted waste types do not include sludges or liquids and are non-hazardous. The wastes are also inert, so a low magnitude risk is estimated, because risk of fire, whether by accident or arson, is very low.	As above. Activities will be managed in accordance with the Environmental Management System. The site is also secured by concrete walling and fencing to stop any vandalism or potential arson. Activities shall be managed and operated in accordance with the Environmental Management System (which includes fires and spillages).	Low

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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 low. The wastes are inert, so a low magnitude risk is estimated, because risk of fire, is very low.	As above (excluding comments on access to waste). Permitted activities do not include the burning of waste. Activities shall be managed and operated in accordance with the Environmental Management System (which includes fires and spillages).	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. There is potential for contaminated rainwater to be produced from wastes stored outside buildings especially during heavy rain, however this area is concreted with sealed drainage connected to sewer via the interceptor and so there are no pollution pathways on the site and therefore no potential harm to surface waters.	The risk has been mitigated as all activities will be managed in accordance with the Environmental Management System. The ground is fully concreted with sealed drainage connected to the sewer via the interceptor which stops all pollution pathways. All liquids on site such as fuel for plant, are stored outdoors on impermeable drained surfaces. A spillage control procedure also forms part of the Environmental Management System. These measures reduce all potential pollution pathways.	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	Waste types are non-hazardous so harm is likely to be temporary and reversible.	The risk has been mitigated by ensuring that all activities will be managed in accordance with the Environmental Management System. Additionally, the ground is fully concreted with sealed drainage connected to the sewer via the interceptor which stops all pollution pathways.	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.	Medium	Medium	Medium	Watercourse must have medium / high flow for abstraction to be permitted, which will dilute contaminated run-off.	As above. The Ground investigation carried out as part of the Site Condition Report has identified that the site is over 215m from the nearest abstraction point.	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	There is a low potential for contaminated rainwater run-off or leachate from permitted waste types.	As above. The Ground investigation carried out as part of the Site Condition Report has identified that the site is not located within a groundwater protection zone.	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 cases. The River Lea Navigation is 600m to the NW.	As above, plus procedures in the Environmental Management System will effectively mitigate this risk.	Very low

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Protected sites - European sites and SSSIs	Any	Harm to protected site through toxic contamination, nutrient enrichment, smothering, disturbance, predation etc.	Any	Medium	Medium	Medium	There are no designated environmentally sensitive sites considered to be potentially at risk of impact from the site. There are no SSSI's within the vicinity, and the nearest LNR is 1.7km to the west, and is Tower Hamlets Cemetery Park LNR. The nature of wastes accepted, activities carried out on site and the sealed concrete means that it won't create any issues of noise, litter, pests, vibration, odour etc.	The site will not carry out any operations that create noise or vibration; the surrounding concrete walls will reduce litter and noise at the surrounding receptors. The Concrete surface will reduce any issues of mud and the equipment used for dust suppression will ensure that dust isn't an issue on site. The mitigation method previously discussed for odours will also ensure that it will never become an issue and affect the nearby receptors. Therefore, the location of the site and control of operations in accordance with the Environmental Management System makes the risk to environmentally sensitive sites negligible.	Low

**Notes:** Red triangle indicates comment containing supporting information

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