

Docksway Disposal Site - Amenity Risk Assessment

Hazard	Receptor	Pathway	Probability of exposure	Consequence	Risk	Mitigating Measures	Residual Risk
Odour							
Waste - Vehicles arriving onsite with odourous material.	Human receptors as listed in table x.1	Air	Low as prevailing wind direction is SW to NE (away from receptors).	Low - Annoyance and nuisance	Low	Wastes brought to site in enclosed refuse collection vehicles. Strongly odourous wastes not accepted after midday. Deliveries restricted to hours stated within the planning permission.	Very Low
Waste - Tipping at Area 2.	Human receptors as listed in table x.1	Air	Low as prevailing wind direction is SW to NE (away from receptors).	Low - Annoyance and nuisance	Low	Waste transferred in enclosed areas. Strongly odourous wastes not accepted after midday to ensure that it is covered by less odourous wastes throughout the remainder of the day. Wastes covered at the end of each working day. If wind exceeds 20mph transfer of waste to tipping face is restricted.	Very Low
Landfill Gas.	Human receptors listed in table x.1	Air	Low as prevailing wind direction is SW to NE (away from receptors).	Low - Annoyance and nuisance	Low	Landfill gas is extracted and used for power generation or is flared off. Gas plant operated and maintained as per Infnis schedule and odours monitored. Waste covered at the end of each working day.	Very Low
Leachate.	Human receptors listed in table x.1	Air	Very Low as prevailing wind direction is SW to NE (away from receptors) and leachate is actively managed in accordance with the Permit.	Low - Annoyance and nuisance	Low	Area 2 is fully engineered and contained. Leachate is pumped directly from landfill to licensed waste carrier tankers for offsite disposal. Loading area is maintained and cleaned based upon site supervisor daily inspections.	Very Low
Asbestos	Human receptors listed in table x.1	Air	Very Low as asbestos is not odorous	No consequence	Very Low	None required	Very Low
Noise and Vibration							
Noise from vehicles arriving / departing site and use of onsite plant.	Human receptors listed in table x.1	Air	Low to medium due to distance to receptors, and prevailing wind direction away from receptors	Low - Annoyance and nuisance	Very Low	Operations restricted to hours stated within the planning permission. Vehicles and plant regularly maintained as per site schedule	Very Low
Vibrations from vehicles arriving / departing site and use of onsite plant.	Human receptors listed in table x.1	Land and air	Low to medium due to distance to receptors, and prevailing wind direction away from receptors	Low - Annoyance and nuisance	Very Low	Operations restricted to hours stated within the planning permission. Vehicles and plant regularly maintained as per site schedule.	Very Low
Fugitive Emissions							

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Dust generated from site	Human, Ecology and Property receptors listed in table x.1	Air - wind blown	Medium due to distance to receptors, and prevailing wind direction away from majority of receptors	Low - Annoyance and nuisance, dust on cars, buildings, drying clothes	Moderate	Water bowser used to dampen down access roads deployed as required. If wind exceeds 20mph tipping of wastes ceased. Waste faces covered at the end of each working day. If water is cut off, there is temporary supply available on site from storage ponds.	Low
Dust generated from tipping in asbestos cell	Human receptors listed in table x.1	Air - wind blown	Low due to asbestos being bagged and additional controls as per the SNRHW operational and management plan.	Significant - Harm to human health	Low	SNRHW tipping to be undertaken in accordance with the SNRHW operational and Management Plan.	Very Low
Pests - birds	Human & Property receptors listed in table x.1	Waste carried by birds	Medium	Low - Annoyance and nuisance, wste dropped by birds	Low to moderate	Birds of prey deployed during tipping of wastes to deter birds. Waste faces covered at the end of each working day (non-hazardous waste) or immediately following completion of tipping (SNRHW)	Low
Pests - vermin (rodents)	Human & Property receptors listed in table x.1	Migration of vermin off site, waste carried off site by vermin	Low to Medium	Moderate - Annoyance and nuisance, wste dropped by vermin, human health (eg Weils disease etc)	Low to moderate	Birds of prey deployed for bird pests also act to discourage rodents. Waste faces covered at the end of each working day. (non hazardous watsse) or immediately following completion of tipping (SNRHW). Rodent traps set.	Low
Litter from tipping faces.	Human & Property receptors listed in table x.1	Wind blown	Medium	Low - Annoyance and nuisance	Moderate	Litter fence 4m high to trap litter. Litter patrols undertaken at site managers discretion based upon daily inspection.	Low
Suspended solids in Surface Water runoff.	Controlled Waters & Ecology receptors listed in table x.1	Surface run off and via collection ditches	Low to Medium	Low to moderate - Degradation of water quality, breach of discharge consent	Moderate	Surface water samples collected monthly and tested in accordance with the discharge consents.	Low
Mud tracked onto public highway.	Property (asset) receptor (A48) listed in table x.1	Wheels of vehicles exiting site	Medium	Significant - Mud tracked onto road and potential to cause accident	Low to Moderate	All vehicles to use wheel wash on site. Daily inspection of site roads undertaken by site manager and cleaned if necessary. Refuse trucks restricted to surfaced roads.	Low
Accidents							
Fuel spillage on haulage road.	Human, Controlled Water & Ecology receptors as listed in table x.1	Surface run off	Low to medium	Moderate - Harm to human health, release of potential contaminants to controlled waters and damage to sensitive ecology receptors	Moderate	Spill kits present on site for small to medium soils. For larger spills licensed spill contractors would be employed.	Low
Spillage of leachate during removal from site	Human, Controlled Water & Ecology receptors as listed in table x.1	Surface run off	Low to medium	Moderate - Harm to human health, release of potential contaminants to controlled waters and damage to sensitive ecology receptors	Moderate	Spill kits present on site for small to medium soils. For larger spills licensed spill contractors would be employed.	Low

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Flooding mobilising contaminants and leachate.	Controlled Waters & Ecology receptors as listed in table x.1	Land (surface runoff), groundwater and surface water (River Ebbw)	Low to medium	Low to moderate - Release of potential contaminants to controlled waters and damage to sensitive ecology receptors	Low to medium	Area 2 is identified as being within Flood Zone 3. Flood Zone 3 areas are where in a given year there is a 0.5% and 1% chance that the area could be affected by flooding from the sea and river respectively.	Low to medium
Failure of external waste slope	Controlled Waters & Ecology receptors as listed in table x.1	Direct movement of waste and leachate	Medium	Significant - Release of waste, leachate and potential contaminants into controlled waters and damage to sensitive ecology receptors. Loss of amenity.	Moderate to high	Waste slopes to be constructed in accordance with the stability risk assessment.	Low
Instability resulting in breach of landfill lining system	Controlled Waters & Ecology receptors as listed in table x.1	Direct movement of waste and leachate	Medium	Significant - Release of waste, leachate and potential contaminants into controlled waters and damage to sensitive ecology receptors. Loss of amenity.	Moderate to high	Waste filling operations to be undertaken in accordance with the stability risk assessment.	Low
Smoke and particulate generation from fire and surface runoff from fire fighting waters.	Human, Controlled Waters, Asset & Ecology receptors as listed in table x.1	Air (dispersion of smoke), land (surface runoff) and controlled waters (River Ebbw)	Low	Moderate - Nuisance, loss of amenity, harm to human health, devaluation of asset & damage to sensitive ecology receptors.	Moderate	Landfill waste covered at the end of each day. Site emergency procedures regarding fire will be followed. Significant volume of firewater runoff can be contained in Area 2 surface water management ponds. See attached site emergency plan.	Low
Fire: Damage to landfill liner and leachate collection infrastructure.	Controlled Waters & Ecology receptors as listed in table x.1	Land (downward migration via substrata & surface runoff), groundwater and surface water (River Ebbw)	Low	Moderate - Contamination of controlled water and damage to ecology receptors. Loss of amenity.	Moderate	Landfill waste covered at the end of each day. Site emergency procedures regarding fire will be followed.	Low
Explosion due to ignition of landfill gases.	Human & Ecology receptors as listed in table x.1	Air	Low	Loss of amenity, damage to ecosystems and harm to human health (residents and emergency services).	Moderate	No smoking permitted on site. All electrical equipment on site is intrinsically safe. Landfill gas is managed in accordance with the Infnis management plan. See attached Infnis emergency plan.	Low

Receptor	Type	Location	Description
Human	Residential	500m west and 1 km north west	Tredegar Park and surrounding residential, and Maesglas
	School	500m west and 1km north west	Duffryn High School and Maes-Ebbw School
	Recreational	500m west	Playing fields
	Commercial	700m north	Maesglas Retail Park
	Industrial	50m south east	Newport Docks
	Farmland	50m west	Agriculture (livestock)
	Railway	250m west	Not considered relevant due to enclosed and transient nature of railway users.
	Highway	400m south west (B4239) and 650m north (A48)	Not considered relevant due to enclosed and transient nature of highway users.
Controlled Waters	River	20m west and 1km south east	River Ebbw and River Usk
	Docks	400m south east	Alexandra and South Docks
	Groundwater	Onsite	Secondary A and B aquifers as identified in the HRA. HRA identifies that the site is not located within a groundwater source protection zone.
Ecology	SSSI, ASA &OHL	75m west	Gwent Levels
	RAMSAR, SAC, SPA &SSSI	600m south	Severn Estuary
	SSSI & SAC	1km south east	River Usk
Property	Livestock	50m west	Farmland
	Buildings	50m south east	Newport Docks
	Buildings	500m west and 1km north west	Residential
	Buildings	500m west and 1km north west	Schools
	Buildings	700m north	Maesglas Retail Park
	Infrastructure	250m west	Railway
	Infrastructure	400m south west	Highway
	Infrastructure	650m north	A48
Maes Glas - 1000m N (cRIGS)	Maes Glas	Candidate for regionally important geological site	not relevant due to distance and as geological features are not affected by development