Risk Assessment 968_02

Bespoke Facility:	Waste Operation: Inert and Excavation Waste Transfer Station with treatment
Location:	PROJECT RE-CYCLING TYNEWYDD FARM, GROESFAEN, PONTYCLUN , CF72 8NE
Location of environmentally sensitive sites (km / m):	Greater than 500m (see below)
Risk assessment carried out by:	Jon Waters - Planabuild - on behalf of Project Yellow Recycling Limited
Date:	06-Jul-16

The scope of the permit and associated rules is defined by the following risk criteria:

Parameter 1	Permitted activities - The storage and treatment consisting only of screening and crushing (D9, R3, R4, R5).
Parameter 2	Permitted waste types - Inert and Excavation Waste and the like .
Parameter 3	Quantity of waste accepted at the facility: <352,000 tonnes per annum.
Parameter 4	The activities shall not be carried out within an Air Quality Management Area (AQMA) designated for particulate matter in the form of PM10.
Parameter 5	All inert wastes shall be stored and treated on an permeable surface.
Parameter 6	The only point source discharges to controlled waters or groundwater, are surface water from extreme storm events.
Parameter 7	The activities shall not be carried out within 500m 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 8	The activities shall not be carried out within 250m of the presence of Great Crested Newts where it is linked to the breeding ponds of the newts by good habitat
Parameter 9	The activities shall not be carried out within 50m of any well spring or borehole used for the supply of water for human consumption. This must include private water supplies

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).	Harm to human health - respiratory irritation and illness.	Air transport then inhalation.	High	Medium	**High**	Permitted waste types are inert and do not include dusts, powders or loose fibres and have a low potential to produce bioaerosols, The treatment activities will not produce dusts as the equipment is fitted with water sprays to suppress dust. There is an increased potential of dust generation during prolonged dry periods.	Emissions of dust from crushing and screening plant controlled by dust spays which are fitted as original equipment on the crushing and screening equipment. The site is to be provided with a water bowser to ensure that sufficient water is available to the above equipment and for spaying on haul roads and stockpiles as required in dry weather.	Low
Local human population	As above	Nuisance - dust on cars, clothing etc.	Air transport then deposition	High	Low	**Medium**	As above. Local residents often 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	Low	Low	**Low**	Local residents often sensitive to litter, however permitted waste types have low litter potential.	Appropriate measures include clearing litter arising from the activities from affected areas outside the site.	Very 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 often sensitive to mud on roads.	There is a low probability of litter in the Inert wastes to be dealt with on this site. Appropriate measures include clearing any litter and mud arising from the activities from affected areas outside the site.	Low
Local human population	Odour	Nuisance, loss of amenity	Air transport then inhalation.	Low	Low	**Low**	Local residents often sensitive to odour, however permitted waste types have low odour potential.	Emissions shall be free from odour.	Very low

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 majority of proposed operations do not generate excessive noise and vibration which may be a nuisance to nearby residents. The crushing operations using mobile plant, brought to site from time to time, are those which will generate the greatest level of noise and vibration. The mobile plant will be located on the site (see drawing 697-61) at a position as far away as possible from the nearest houses, located approximately 230 metres away. To minimise the escape of noise outside of the site boundaries, the site is to be set approximately 4.5 metres below the level of the fields between the site and the nearest houses. There is a bank of trees growing at the perimeter of the site and the stockpile of unprocessed materials is also located between the crushing equipment and the perimeter of the site nearest to the houses.	Low
								The crushing equipment will be maintained and used in accordance with manufacturers recommendations to avoid excessive noise and vibration. The crushing equipment will only be operated during normal working hours (08.00 hrs to 18.00 hrs Mondays to Fridays and 08.00 hrs to 13.00 hrs Saturdays) to avoid any noise during evenings , nighttimes and weekends. If any noise problem is identified by NRW officers additional measures will be but in place to avoid any unacceptable noise pollution.	
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	**Low**	Permitted wastes unlikely to attract scavenging animals and birds but may become nesting / breeding sites.	Emissions of substances not controlled by emission limits (including those from scavenging animals, scavenging birds and other pests) shall not cause pollution.	Very low
Local human population	Pests (e.g. flies)	Harm to human health, nuisance, loss of amenity	Air transport and over land	Low	Medium	**Low**	Permitted waste types 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	Low	Low	**Low**	Permitted waste types are inert. Outfall of any excess water will run off into adjacent stream via the settling ponds rather than down access road towards the housing in Heol Creigiau	Environment Management System describes the management of surface water on 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 inert therefore only a low magnitude risk is estimated	Environmental Management System contains details of site security measures to be taken 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, 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	Low	**Low**	Permitted waste types do not include sludge or liquids and are inert, so only a low magnitude risk is estimated.	Environmental Management System contains details of site security measures to be taken to prevent unauthorised access.	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.	Low	Low	**Low**	As above.	Permitted activities do not include the burning of waste. Inert wastes are non-combustible.	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.	Low	Low	**Low**	Permitted waste types do not include sludge or liquids so only a medium magnitude risk is estimated. Under normal rainfall conditions the rainwater will percolate into the existing ground. However as the site is completely bunded to prevent the site from encroaching on to the river bank, any surcharge from an extreme storm surcharge will be collected in the settling pond where suspended solids will be removed. The clean stormwater will then discharge into the adjacent stream.	All liquids shall be provided with secondary containment.(applies to non-wastes such as fuels). Storm surcharge run-off passes through settling pond prior to discharge into river.	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	Low	Low	**Low**	Waste types are non-hazardous and inert so harm is likely to be temporary and reversible.	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.	Low	Low	**Low**	No water abstraction is planned to occur on this site.	No operations on the site are planned to be carried out within 50m of any well spring or borehole used for the supply of water for human consumption.	Very 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**	Permitted wastes unlikely to contaminate groundwater.	As above for inert wastes	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	Low	Medium	**Low**	Unlikely to occur, but might restrict recreational use.	As above	Very low
Protected sites - European sites and SSSIs	Any	Harm to protected site through toxic contamination, nutrient enrichment, smothering, disturbance, predation etc.	Any	Medium	Medium	**Medium**	Waste operations may cause harm to and deterioration of nature conservation sites.	The operator shall maintain and implement an emissions management plan. The site is not within the zone of influence of any protected species, European sites or SSSI's.	Low