

Birks Royd Stone Ltd

Ten Yards Lane Quarry Waste Recovery Facility

Bespoke Recovery Permit Application

Environmental Risk Assessment (ERA)

Document Reference: TYL-ERA-01

Issue 1

July 2026

Prepared by



1. Introduction

- 1.1 Silkstone Environmental Ltd (SEL) has produced this Environmental Risk Assessment (ERA) as part of a bespoke recovery permit application for importation of inert waste for the restoration of Ten Yards Quarry, Denholme.
- 1.2 The Environmental Permitting (England and Wales) Regulations (EPR) 2016 (as amended) require regulated facilities to be operated in accordance with an environmental permit (EP). Regulated facilities include 'installations' as listed in Schedule 1 of the EPR.
- 1.3 This Environmental Risk Assessment (ERA) is a simple assessment of the risks to the environment and human health from accidents, odour, noise and fugitive emissions that may be associated with waste operations at the facility.

Report Context

- 1.4 This ERA is an assessment of the potential risk to the environment and to human health that may be associated with the proposed operations at the Site. The document will describe the risks and what techniques will be implemented to manage its potential effects upon the environments.
- 1.5 The report has been drafted to satisfy the requirements of European Commission, UK and Defra guidance (where applicable), most notably:
- 1.6 This ERA uses the following approach for identifying and assessing the risks from the proposed permitted operations:
 - Step 1** Identify and consider risks for your site and the sources of the risks.
 - Step 2** Identify the receptors at risk from your site.
 - Step 3** Identify the possible pathways from the sources of the risks to the receptors
 - Step 4** Assess risks relevant to your specific activity and check they are acceptable and can be screened out.
 - Step 5** State what you will do to control the risks if they are too high
 - Step 6** Submit your risk assessment as part of your EP application.
- 1.7 The guidance requires all likely receptors that are near the Site and could reasonably be affected by the proposed activities and both the direct and indirect environmental effects to be identified and considered as part of the ERA and to assess the measures to mitigate proposed risks. The assessment requires the identification and quantification of possible effects.
- 1.8 Therefore, for the purpose of this report:
 - a radius of 1000m from the proposed permit boundary has been adopted for all other potentially sensitive receptors (for example, residential, commercial, industrial, agricultural and surface water receptors).
- 1.9 Appendix A of this document presents the assessment and demonstrates that any risks of pollution or harm will be mitigated to manage the risk.
- 1.10 This ERA should be read in conjunction with the following documents submitted with this application:
 - Written management System (WMS)

- Environmental Setting & Site Design (ESSD)
- Drawings

2. Consideration of Risks

2.1 The first stage is a screening step to identify potential risks to the environment from the development. The risk assessment must identify whether any of the following risks could occur and what the environmental impact could be:

- Any discharge;
- Accidents;
- Odour;
- Noise and vibration;
- Uncontrolled or unintended emissions (Fugitive emissions);
- Visible emissions; and
- Release of bioaerosols.

2.2 Based on the proposed permit for the Installation, there will be no point source emissions to groundwater, or land and the proposed operations will not attract pests. For the purpose of this ERA these elements have not been considered.

2.3 Therefore, only the following risks are required to be assessed for the permit application:

- Odour;
- Noise and vibration;
- Fugitive emissions (including, dust, litter, mud, leaks/spills and pollutant); and
- Accidents.

2.4 The second stage identifies people or parts of the environment that could be affected (at potentially significant risk) by the activity. This section identifies the Site setting and potentially sensitive receptors in the vicinity of the Site.

3. Site Setting and Receptors

3.1 Ten Yards Lane Quarry covers an area of 5.4ha and is located in Thornton, near Bradford, West Yorkshire. The site lies approximately 1 kilometre to the east of Denholme and 2.5 kilometres northwest of Thornton. It has been an operational sandstone quarry since the 1980's both block and flagstone production. It is within the authority of Bradford Metropolitan District Council (BMDC)

3.2 Ten Yards Lane public highway runs parallel to the eastern boundary of the site.

3.3 Parts of the site have been worked and restored back to agricultural fields using waste quarry materials. There is only a small amount of mineral to be extracted. Once this has been completed, stored heaps of quarry waste can be infilled into the open void prior to waste importation.

3.4 The site topography is of high elevation with moderately undulating and local strong slopes to the west of the site. The land within the quarry extension rises from 281m Above Ordnance Datum (AOD) to 293m AOD.

- 3.5 The land to the north, east and south of the site boundary is rough grazing land. There is a parcel of rough grazing land to the west beyond the planted and restored areas of the site bordering the Doe Park Reservoir.
- 3.6 The main residential areas of Denholme are located to the east with the edge of the town at closet proximity on Doe Park Drive at 600m.
- 3.7 Other than the numerous farm operations, the only other industrial activity within 1km is Omega Proteins 350m from the southern boundary. This is an animal rendering facility and is not considered to be a source of dust generation.
- 3.8 Black Dyke Quarry is located 640m to the east but is disused and currently in an overgrown state.
- 3.9 The closest sensitive receptors are listed in Table 1 below.

Table 1 Distances to Selected, Representative Sensitive Locations

Boundary	Closest property	Approximate distance to TEN YARDS LANE site boundary (m)
South	Law Farm (Landowner)	100
West	Doe Park Reservoir	200
East	Moorcock Hall Farm	280
East	Allen Park Farm	290
South	Omega Proteins	350
North	Reservoir House	430
North	Hazel Crook Farm	520
North	Tewitt Farm	530
South	Spring Hall Farm	590
South	Slippershaw Farm	600
West	Residential properties on Doe Park Drive	600
North	The Coach House	690
South	Rose Cottage Farm	720
East	Residential Properties on Foster Park View	730
North	Manor Farm	770
North	Old Allen Farm	830
East	Denholme Skate Park	840
North	Aycliffe Farm	840
East	Upper Streamhead Farm	840
North	Allen House Farm	850
South	Residential Properties on Half Acre Road	870
South	Low Fold Farm	890

4. Environmental Risk Assessment

- 4.1 Risk Assessment is the process by which the likelihood, frequency and level of any harm from a proposed operation may be qualified and quantified to allow the reduction, as far as possible, of that threat to the environment.

4.2 The risk assessments carried out in support of this application will:

1. Identify the potential hazards of the operations proposed
2. Determine the likelihood, frequency and level of any hazard to the environment
3. Determine the consequence of any hazard
4. Allocate a level for the risk, using the above criteria
5. Provide controls for the risks identified

4.3 This Environmental Permit Application will apply to placement of inert waste within the quarry void to enable the site to be restored back to original ground levels. The overall environmental risks associated with the proposed operations are therefore low due to the low risk nature of the waste to be imported.

Potential Hazards

4.4 The potential hazards are set out below, with their targets & pathways. For this application, the risks of liquid spillages, odours, pests, fires and explosions within the waste are minimal because the waste handled within the waste area will be inert and therefore low risk.

Source & Hazard	Pathway	Targets
Dust from depositing	Airborne	Site operatives /Visitors / Users/ Neighbours
Dust from Stockpiling	Airborne	Site operatives /Visitors / Users/ Neighbours
Fires (Plant/Waste)	Overland and Airborne	Site operatives /Visitors / Users/ Neighbours
Fuel Oil Spillages	Direct to	Site operatives /Visitors / Users/ Neighbours /Environment and Surroundings
Litter from Waste	Airborne	Site operatives /Visitors / Users/ Neighbours
Mud & Debris	Direct to	Site operatives /Visitors / Users/ Neighbours /Environment and Surroundings
Noise from operations	Direct to	Site operatives /Visitors / Users/ Neighbours /Environment and Surroundings
Non-conforming Wastes	Direct to	Site operatives /Visitors / Users/ Environment
Odour	Direct to	Site operatives /Visitors / Users/ Neighbours /Environment and Surroundings

Site Security	Direct to	Site operatives /Visitors / Users/ Neighbours /Environment and Surroundings
Surface & Groundwater	Direct to	Site operatives /Visitors / Users/ Neighbours /Environment and Surroundings

Vermin within waste	Direct to	Site operatives /Visitors / Users/ Neighbours /Environment and Surroundings
Visual Impact of operations	Direct to	Site operatives /Visitors / Users/ Neighbours /Environment and Surroundings

Assessment of Risks

- 4.5 For each of the above hazards, the actual risk to the environment and persons or property in and around the site is assessed on the table below. The table covers both waste deposition and storage operations. With the control measures listed in the preceding sections in place, it will be seen that the overall risk posed by the proposed operations is low.
- 4.6 Further detailed Operational Risk Assessments, combining both Environmental and Health and Safety Risks, may be found at the end of this section.

Hazard & Source	Probability Of Occurrence	Magnitude Of Consequence	Level of Risk With Controls In Place
Smoke (Fires)	L	M	L
Fire (Waste/Plant)	M	M	L
Dust (Stockpiling)	L	M	L
Litter	L	L	L
Non-conforming Wastes	L	M	L
Visual Impact (Operations)	L	L	L
Noise (Processing)	L	M	L
Fuel Oil Spillages	L	M	L
Surface Water & Groundwater	L	M	L
Vermin	L	M	L
Odour	L	L	L
Mud & Debris	L	L	L

- 4.7 As can be seen from the accompanying documents, all of the risks have been satisfactorily dealt with throughout the design stage of the site operations.

- 4.8 The nature of the above potential hazards and the proposals for managing the risks identified are described below. The issue of dust generated by the proposed operation will be dealt with as one unit.

Dust

- 4.9 Dust and emissions management is covered fully within the Dust Emissions Management Plan (TYL-DEMP-01) but the key points are replicated here for completeness.
- 4.10 The site manager will ensure that all operatives are familiar with the dust management plan for the site, and of all relevant health and safety policy documents.
- 4.11 The site operator will ensure that dust generation on site is minimised at all times by implementing the dust management plan.
- 4.12 The aim of the dust management plan is to:
- a) Minimise dust generation and migration from the site
 - b) Ensure nuisance caused to nearby receptors from dust is kept to a minimum.
 - c) To develop a dust minimisation strategy that shall be implemented by the site management.
 - d) Ensure that operations at the site have consideration for potential dust generation.
- 4.13 The dust management plan shall be reviewed on an annual basis, and changes made to ensure that dust continues to be effectively managed at the site throughout its operations.

Dust Control Measures

- 4.14 Potential dust emissions from the site may be generated from activities associated with:
- Vehicle movements to and from the site.
 - Operational processes including the mixing and placement of waste.
 - Exhaust's from operational plant/equipment.
- 4.15 In order to minimise potential generation of dust from the site, the following preventative control measures shall be implemented;
- a) All inert waste will be placed in the waste reception area and deposited for restoration as soon as is practicable
 - b) The site management will utilise a mobile water bowser throughout the site area to condition surfaces and any waste handled, to ensure mitigation of dust generation.
 - c) If necessary, a mobile fine mist water spray will be provided for the haul road in the unlikely event that the bowser proves insufficient to suppress dust generation.
 - d) Mud and debris, which has the potential to dry out and generate dust, will be kept clean from the site roads by the use of a road sweeper or manual labour where it is deemed necessary.
 - e) As a matter of course, drivers will be instructed and monitored to ensure discharge heights are kept to a minimum.
 - f) All waste handling and compaction operations on site shall be monitored by site management, and if necessary dust suppression systems (i.e. water bowser or spray system) shall be activated to mitigate dust migration.

- g) Vehicles discharging on site will do so within the quarry void, and below the elevation of the land immediately adjacent to the quarry, wherever possible.
- h) All vehicles will be fitted with exhausts venting skywards to avoid unnecessary dust generation.
- i) Site operating personnel, including plant operators, will be supplied with dust masks, whenever necessary, and all plant cabs shall be maintained such that as far as reasonably practical the ingress of dust is minimised.
- j) Vehicular speeds at the site shall be strictly controlled and the number of movements on site kept to a minimum in order to limit associated dust generation.
- k) Should the measures stated above be insufficient to mitigate nuisance caused by dust migration from the site then the specific activity causing dust nuisance at that time shall cease immediately. The specific activity shall only re-commence once adequate mitigation measures are taken to address dust generation from that particular activity.
- l) All dust suppression systems and equipment used on site shall fall under the maintenance schedule for all site plant.
- m) Any maintenance or repairs required to maintain the efficiency of dust suppression equipment shall be carried out as soon as reasonably practicable and recorded within the relevant maintenance log.
- n) Any site operations compromised by the breakdown of dust suppression equipment will cease until such systems are repaired or adequate alternative mitigation measures put in place.

Management and Review Procedure

- 4.16 The site manager will be responsible for the control and management of dust at the site. Site management will ensure that all personnel operating on site are adequately trained to implement the dust control measures and that they are strictly implemented at all times.
- 4.17 When the control measures stated are implemented, dust generation and nuisance to nearby receptors should be kept to a minimum.
- 4.18 In the event that dust nuisance is caused to a nearby sensitive receptor, and a complaint is received regarding dust migrating from the site, the following dust action plan will be implemented.

Dust Action Plan

- a) If any operation at the site results in unacceptable dust generation and migration then that operation will be reviewed by the site management and improvements put in place wherever possible that satisfactorily mitigate dust generation. The operation may be suspended temporarily should site management consider it necessary to facilitate any operational improvements.
- b) If a complaint is received regarding dust nuisance arising from the site, the site management will immediately investigate that complaint and determine the source of the dust. If the source is identified as being the site then appropriate actions shall be taken to mitigate the dust generation that led to the original complaint.
- c) Any mitigation action taken will be communicated to the complainant. The nature of the complaint, the findings of the investigation and any mitigation measures adopted shall

be recorded in writing and kept on record.

Dust Monitoring

- 4.19 Should complaints continue to be received regarding dust nuisance, dust monitoring will be undertaken. The monitoring locations and frequency will be agreed with the Environment Agency.
- 4.20 Dust monitoring shall be carried out by an independent technician.
- 4.21 Dust monitoring gauges will be set up and will comprise a Frisbee type depositional dust monitoring gauge and sticky pad adapter as shown in Figure 1 below.



Fig 1 – Directional and Depositional Dust Sampler

- 4.22 The sticky pad shall be replaced after each monitoring period and each sticky pad shall be analysed independently to determine the rate and direction of dust deposition.
- 4.23 After each dust monitoring period, the contents of the depositional dust gauge will be collected and sent for independent analysis to determine the rate of dust deposition. If necessary, the dust collected in the dust gauge may be analysed to determine its nature and origin.
- 4.24 The sticky pad and depositional dust samples recovered from the dust monitoring location will be independently analysed and the results submitted to the site operator.

- 4.25 Should dust monitoring results identify the site as being the source of significant dust migration, then the site management will undertake a full review of all site operations to establish the source of the dust generation. The operational review shall result in improvements being adopted at the site that mitigate any further dust nuisance.
- 4.26 Baseline directional and deposited dust levels will be monitored at locations and a frequency to be agreed with the Environment Agency.

Directional Dust

- 4.27 The directional dust monitoring component of the device samples fugitive dust coming from 360° around the gauge and the deposited dust monitoring component collects dust depositing from the air onto a horizontal surface.
- 4.28 At the end of each sampling period, the sampler units are removed and placed in a protective carrying flask or case and replacement samplers fitted. For the directional samplers, the pattern of dusting on the cylinder indicates the direction and magnitude of visible dust propagation. For the depositional samplers, the dust coverage on the sticky pads indicates the magnitude of visible dust deposition at that point.
- 4.29 Assessment of dust coverage on the sticky pads uses a computer-based scanning system. Directional dust measurements are reported at 23° intervals around the sampling head by comparing the exposed 'sampling area' of the sticky pad with an unexposed 'reference area'. The deposited dust data are reported as the average of the sampling area in relation to the reference area. The results are reported as Effective Area Coverage (EAC) which measures the darkness or potential soiling of dust.

Depositional Dust

- 4.30 This method measures dust deposition rate and involves the passive deposition and capture of dust within a funnel and bottle arrangement. Data is usually collected over monthly periods and results are expressed in g/m²/month (ie. the mass of dust deposited per m² per month). This method enables determination of the relative 'dustiness' of sampling locations. It does not provide data on dust concentrations or enable determination of dust levels from a particular event or source. It does not give an indication of the potential health effects of the dust because it does not measure the amount of fine and very fine particles in the atmosphere.
- 4.31 Thresholds should be agreed between the site operator and the regulator and will be dependent on the site and proximity of sensitive receptors.

5. Noise

- 5.1 As the site benefits from an existing planning permission for mineral extraction the noise impact from these operations has been part of the existing noise climate for many years.
- 5.2 The plant and operations to be used already have noise measures in place.
- 5.3 All plant will carry effective silencers and will be noise suppressed to manufacturer's specifications. The plant will be well maintained. Operations will be stopped and repairs made if this is found to be otherwise.
- 5.4 It is not considered that the proposed development would cause any significant negative noise impacts.

- 5.5 Whilst the above deals with noise outside the site, it will be managed within the site by ensuring that, wherever possible, operators will work in enclosures away from noise sources. Enclosures, such as cabs on plant, will be supplied where they are deemed necessary. Should an operator have to work within a noisy environment, ear defenders will be provided and worn.

6. Other Potential Risks

6.1 Litter

- 6.1.1 Only inert waste containing construction and demolition wastes will be imported, therefore litter will not be an issue on this site.

6.2 Visual Impact (Operations)

- 6.2.1 The visual impact of the site already exists as an operational sandstone quarry. The importation of inert waste will enable the site to be restored to original ground levels and agricultural use. No additional plant is proposed to what is already permitted for mineral extraction operations.

6.3 Fuel Oil Spillages

- 6.3.1 Any fuel or lubricating oil spills within the site will be cleared immediately and any contaminated material removed, via the Non-conforming Waste segregation procedure, for disposal at a suitable Licensed Facility. Any such spills would be controlled using the spill kits available on site.

- 6.3.2 Any spills on would be absorbed using a suitable material and removed for disposal.

6.4 Surface Water and Groundwater

- 6.4.1 Only a limited volume of waste would be stored on site prior to deposition due to the lack of space within the site.

- 6.4.2 The limit on waste storage capacity and duration will minimise the risk of surface run off.

- 6.4.3 The waste reception area shall not be located in any area of the site where surface water gathers or flows. If site conditions are such that the waste reception area is at risk, then the waste shall be moved to an area of the site that is not at risk, such as an area of higher elevation, and receipt of waste at the site shall cease until conditions improve. In the event that a suitable location is not available anywhere on site, the material shall be loaded onto skips/containers for temporary storage and sheeted/covered to minimise water ingress.

6.5 Smoke (Plant Fires)

- 6.5.1 Smoke from fires on board plant used anywhere on site constitutes a hazard to the surrounding environment and persons connected with the operations on site. The possibility of this occurrence is low.

6.6 Fires

- 6.6.1 The possibility of a fire within the waste stored or processed on site is low, due to the type of waste (inert) that will be deposited within the site. Any fire risk from the processing plant will

be controlled by ensuring that effective procedures are employed to avoid such situations (proper repair and maintenance of plant, etc) and correct management of them should they occur. The necessary equipment, resources and training will be provided for staff to react correctly to such an occurrence.

6.7 Vermin

6.7.1 As the site will use good housekeeping practices and short turn around times for wastes waiting processing and recycling, no vermin problem is envisaged.

6.7.2 Should a vermin problem arise, the appropriate steps will be taken, including the use of control programs by specialist contractors, if necessary.

6.8 Site Security

6.8.1 The quarry as a whole is secured by a fence and the licensed area will be within the quarry void. The quarry access is gated and will be locked when the site is unattended

6.9 Odour

6.9.1 No odours will be generated by the operations within the site as good housekeeping practices will be used along with short turn around times of wastes awaiting processing and dispatch. Any non-conforming waste will be removed for disposal at a suitable Licensed Facility at the earliest opportunity, using the non-conforming waste segregation and disposal procedures laid down in the Working Plan. Such an action will be recorded in the Site Diary.

6.10 Mud & Debris

6.10.1 Mud and debris, whether it is on the ground, on site or on the road at the front of the site, constitutes a risk to both the environment and human health & safety. The main controls for mud and debris are undertaken as part of the good housekeeping practices carried out as part of the daily site operations.

6.10.2 All site surfaces will be maintained in a clean and serviceable condition, with any mud and debris removed, either using the site loading shovel or a hired road sweeper as soon as is practicable. The site staff will continually monitor these areas. All traffic leaving the site will pass through the site wheel wash as conditions dictate. The housekeeping measures listed above will ensure that the site surfaces are kept in a clean condition, so stopping the tracking of mud and debris from the site onto public roads.

6.10.3 As can be seen from the proposals outlined within this document, the risks posed by this operation to the persons, property and the environment are very low.

7. Summary

7.1 Health, Safety and Environmental Monitoring

7.1.1 The Risk Assessments and Emergency Plan covering the whole site are to be re-assessed at regular intervals of not more than 1 year. Should an operation on site change or a new operation or piece of plant be introduced, the Risk Assessments must be updated or expanded accordingly. The Risk Assessments are only to be carried out by suitably qualified and

experienced personnel. Whole site procedures are to be checked for environmental performance against existing Risk Assessments at the same time.

- 7.1.2 The Site Manager will investigate any incidents reported on site and the results of such an investigation recorded in the Site Diary. Should such an investigation reveal the need to amend a procedure or Risk Assessment, that amendment will be completed by the Site Management as soon as is reasonably practicable.

7.2 Environment Agency Returns

- 7.2.1 These are to be completed and returned to the Environment Agency. All the tonnages of waste processed and or transported off site will be recorded, and returns calculated accordingly using weighbridge summaries to ascertain tonnages of incoming inert waste to the crushing and screening operation and disposal tonnages to determine tonnages of waste processed, deposited at the quarry face, and transported off-site. These surveys will be carried out as required by the EA.

7.3 Competent Persons

- 7.3.1 Technically competent management of the crushing and screening operations shall be provided by the person named in the permit application, or as otherwise named by the operator should a change of Technical Competent personnel occur at the site.
- 7.3.2 The operator shall ensure that appropriate Technical Competent supervision of the waste recycling facility is provided for the necessary operational time periods, and that the waste recycling activity is managed using best practice techniques wherever possible.

APPENDIX A
RISK ASSESSMENT SPREADSHEET

Environmental Risk Assessment - TYL-ERA-01

Bespoke Facility:

Inert Bespoke Recovery Operation (up to 100,000 tonnes) for Quarry Restoration

Location:

Applies to all potential locations.

Location of environmentally sensitive sites (km / m):

Greater than 500m (see below)

Risk assessment carried out by:

Silkstone Environmental Ltd

Date:

2nd April 2026

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	Medium	Permitted waste types are inert/soils and have 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.	Emissions of substances not controlled by emission limits (excluding odour and noise) shall not cause pollution. The operator shall not be taken to have breached this rule if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.	Low
Local human population	As above	Nuisance - dust on cars, clothing etc.	Air transport then deposition	Medium	Low	Medium	As above. Local residents often sensitive to dust.	As above	Low

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, 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 may include litter picking affected areas/ rejection of waste loads.	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.	Appropriate measures could include clearing waste, 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.	Waste deposited would not generate 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	Noise management plan included in WMS	Low

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	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 (excluding odour and noise) shall not cause pollution. The operator shall not be taken to have breached this rule if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.	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 /soils so any waste washed off site will add to the volume of the local post-flood clean up workload, rather than the hazard.	Requires a with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances (will include flood risk management).	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/soils therefore only a low magnitude risk is estimated	Activities shall be managed and operated in accordance with a management system (will include site security measures to prevent unauthorised access).	Low

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 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 are predominantly inert so only a low magnitude risk is estimated.	Written management system identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances (will include fire and spillages).	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.	As above (excluding comments on access to waste). Permitted activities do not include the burning of waste.	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	No point source emissions to water are permitted, but there is potential for contaminated rainwater run-off from wastes stored outside buildings especially during heavy rain.	Inert waste so no risk of contamination	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. Excavated wastes from potentially contaminated	As above	Very low

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).
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	Watercourse must have medium / high flow for abstraction to be permitted, which will dilute contaminated run-off.	As above. activities must be 50 metres from any spring or well, or from any borehole not used to supply water for domestic or food production purposes or 50 metres from any spring or well, or 250m from any borehole not used to supply water for domestic or food production purposes.	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 . The activities must also be outside groundwater source protection zones 1 (inner) or 2 outer. Excavated wastes from potentially contaminated sites require analysis. Total quantity limited to 100,000T.	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.	Emissions of substances not controlled by emission limits (excluding odour and noise) shall not cause pollution. The operator shall not be taken to have breached this rule if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions	Very low

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).
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.	Emissions of substances not controlled by emission limits (excluding odour and noise) shall not cause pollution. The operator shall not be taken to have breached this rule if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions. At 500 metres or above, the potential hazards from the permitted activities pose a low risk to the broad sensitivity of species and habitats groups.	Low