Escrick Screening Bund

Environmental Risk Assessment

Escrick Environmental Services Limited

Report No. 16-K5259-BLP-ENV-R-00012
04 May 2022
Revision 01

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Document Control

Document: Environmental Risk Assessment

Project: Escrick Screening Bund

Client: Escrick Environmental Services Limited

Report Number: 16-K5259-BLP-ENV-R-00012

Document Checking:

Revision	Revision/ Review Date	Details of Issue	Authorised		
			Prepared By	Checked By	Approved By
00	29 April 2022	Issued to Client	E Greenhalgh	P Roberts	P Roberts
01	04 May 2022	Issued to EA	E Greenhalgh	P Roberts	P Roberts
Disclaimer: Please note that this report is based on specific information, instructions and information from our Client and should not be relied upon by third parties.					

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Contents

1 Introduction

1.1 Background

This Environmental Risk Assessment (ERA) report has been prepared to support a permit application by Escrick Environmental Services Limited (EES, the Operator) by ByrneLooby (formally TerraConsult) to construct a perimeter bund at the former clay quarry site near Escrick, York (the Site).

Environment Agency (Agency) guidance[1] on risk assessments for your environmental permit requires applications for new environmental permits or variations to an existing permit, to evaluate the risks posed by:

- Any discharge, for example sewage or trade effluent to surface or groundwater;
- Accidents;
- Odour (not for standalone water discharge and groundwater activities);
- Noise and vibration (not for standalone water discharge and groundwater activities);
- Uncontrolled or unintended ('fugitive') emissions, for which risks include dust, litter, pests and pollutants that should not be in the discharge;
- Visible emissions, for example smoke or visible plumes; and
- Release of bioaerosols, for example from shredding, screening and turning, or from stack or open point source release such as a biofilter.

This report will also identify any other potentially harmful emissions associated with the operational workings of the site and the impacts on the sensitive receptors. This report is a risk assessment undertaken in accordance with the aforementioned Agency guidance and also provides justification for the use of other more specific risk assessment methodologies where appropriate.

All the above risks will be tabulated where the hazards, potential receptors and pathway from that hazard will be identified along with the preventative risk management practices to be employed along with an assessment of the mitigated risk.

1.2 Site Location and Description

The Site is located to the west of the A19 midway between York and Selby. The villages of Escrick and Riccall are approximately 2 km to the north and south respectively. The National Grid

[1] Risk assessments for your environmental permit - GOV.UK (www.gov.uk)

reference taken from the centre of site is SE 62092 40358 and access to the site is via a tarmac road from the A19 (Riccall Road).

The Site has previously been subject to clay extraction and currently ESS has environmental permits for Escrick Soil Landfill Site (inert) (ref: ZP3835JD), Escrick Aggregate Treatment Plant (ref: DB3000UP) and Escrick Recreational Facility (ref: JB3934AE). A surrender application has been submitted for Escrick Recreational Facility. A Waste Treatment Facility held by Acumen Waste Services Ltd (ref: BB3907LY) is also onsite and a now closed landfill permit which was held by Biffa UK Ltd. The Biffa landfill permit does cover the whole Site however waste has only been deposited in an area outside the EES permit boundaries and this application.

The Site is surrounded by agricultural land, with Escrick Business Park to the east and the York & Selby cycleway (part of the Trans-Pennine Trail) to the west. A few residential properties are located northwest to southeast.

An ERA (TerraConsult Ltd report referenced: 3156/R/27/01) was submitted and approved as part of the Escrick Soil Landfill Site permit application. As the screening bund forms part of the inert landfill it is considered unlikely the environmental risk associated with the Site will change. The activity will take place within the permit boundary of the landfill site. The overall landform levels associated with the current inert landfill will not change and the actual quantity of waste accepted for disposal will decrease to accommodate the increased depth of restoration soils and perimeter screening bund. The same waste types permitted for the inert landfill will be used.

The screening bund will consist of a structural core and 2 m of restoration material on its outer flanks. The volume required for the core structure of the bund has been calculated at 75,000 m^3 and the outer flanks of the perimeter bunds will require 58,000 m^3 (133,000 m^3 combined).

2 Scope of the Assessment

2.1 Proposed Operations

Planning Permission has been granted by North Yorkshire County Council (NYCC) at Escrick, The Old Brick and Tile Works, Riccall Road, Escrick, YO19 6ED (ref: C8/2020/0460/CPO). Condition 17 and 18 of Planning Permission requires the construction of a screening bund on the western, northern, and part of the eastern boundary. NYCC has specifically mandated that the construction of this bund must be completed in phases before specified areas of the landfill itself can be developed. The Planning Permission also requires 2 metres (m) of soils to be placed upon material deposited for construction of the bund and waste disposed of in the landfill to provide a suitable growing medium for the proposed restoration scheme.

The purpose of the work is to construct a bund that will screen the landfilling activities from members of the public using the Tran-Pennine Way transit way to the west of site and the users of the commercial estate to the east. This bund must be constructed to allow prompt establishment of vegetation to incorporate the structure into the surrounding landscape.

BG Design Associates prepared a report in March 2021 to discharge conditions 17 and 18 of the Planning Permission. It outlined the screening bund construction details. The initial grading and screening works to create a screen bund would be carried out progressively extending from east to southwest in an anti-clockwise direction. Access for construction purposes would be along the toe of the screen bund along retained access tracks. The overall screen bund profile would be grass seeded with the outer flank woodland planted using a lowland mixed deciduous woodland matrix. The screening bund will obscure the waste disposal activities reducing the visual impact of the Site on surrounding amenities. The woodland planted at the outer flank will also improve the wildlife value of the Site and provide biodiversity benefits. Further details are provided in the approved Waste Recovery Plan (WRP) (referenced: 16-K5259-BLP-ENV-R-00001) submitted with this application.

2.2 Potential Hazards

2.2.1 Discharges to surface or groundwater

Details regarding surface water and groundwater have been provided in the Environmental Setting and Site Design (ESSD) (referenced: 16-K5259-BLP-ENV-R-00013) and will not be considered further in this ERA.

2.2.2 Odour

The potential for odours arising from the placement of wastes is very small. The bulk of the material will be soils and stones with low or negligible organic content and it is considered very unlikely this material will represent a source of odour. The Compost Like Output (CLO) to be used as the primary topsoil material has been subject to intensive biological treatment prior to import

to this site at a permitted waste treatment facility. The potential of this material to produce odours after stabilisation is greatly reduced and has already been permitted for use onsite as detailed in the approved Benefit Statement. This strict waste acceptance criteria procedure ensures that no non-conforming materials are accepted which may contain malodorous waste. The risks associated with odour are detailed in Table 2.

2.2.3 Noise and Vibration

The risk of excessive noise and vibration associated with the proposed activity will be restricted primarily to movement and operation of site plant. The Site is located within a relatively isolated location with agriculture to the north and south, the Trans-Pennine trial to the west, and an industrial estate and the A19 to the east. It is therefore considered that the construction of the screening bund at the site is unlikely to generate an unacceptable noise impact.

The planning permission restricts site operational hours. It also sets a noise limit for temporary operations such as the perimeter bund at 70dBLAeq and as such monitoring will be undertaken in accordance with the planning permission. The perimeter screening bund will be constructed in accordance with the planning permission prior to infilling to reduce noise emissions and reduce the visual impact of future landfilling activities at Site.

It is considered that HGV movements on the haul roads at the site would generate very low noise levels at the closer receptor locations. On site speed limits will be enforced and internal site roads will be maintained. Appropriate maintenance of site vehicles in accordance with the manufacturer's or supplier's instructions will be undertaken. All machinery and vehicles will be fitted with effective silencers.

The risks associated with potential noise and vibration emissions and the management protocols used to control them are detailed in Table 3.

2.2.4 Fugitive Emissions

2.2.4.1 Dust

Particulate emissions can arise from the deposit of potentially dry or dusty wastes, uncovered dusty waste deposits, un-vegetated areas (e.g. preparatory engineering works), vehicle movements on unpaved or dusty roads and settlement of surface water run-off laden with suspended solids.

The primary control for dust emission minimisation will be the restriction on the acceptance of dusty wastes for deposit. The site staff will enforce strict waste acceptance protocols to manage the deposit of potentially dusty wastes.

All site haul roads will be maintained and cleaned as necessary to minimise the accumulation of mud or dusty materials. Dampening of site roads / surfaces will be undertaken as necessary using a tanker during dry periods. All vehicles leaving site will pass through a wheel wash to remove

excess mud, and in addition to this, all vehicles on site shall not exceed the onsite speed limit within the site boundary. The risk associated with fugitive dust emissions are detailed in Table 4.

2.2.4.2 Litter

Waste Acceptance Protocols will restrict the waste types to be brought to site. These are very unlikely to contain materials which could present a risk of wind-blown litter and will not be considered further by this ERA.

2.2.4.3 Pests and Vermin

Putrescible waste may attract pests and scavengers and also provide a habitat for the breeding or loafing of pests and vermin. The material brought to site including the CLO will exclude the readily biodegradable material associated with municipal wastes such as food that may otherwise attract pests. The CLO materials will have been subject to intensive treatment at a permitted facility and will be stabilised to remove or completely degrade any material which would attract pests. The quantity of CLO on site at any one time will be limited to 500 tonnes but normally placed immediately on receipt. A First-in, First-out principle will be used for all waste stockpiles to ensure oldest wastes are used first. The stabilised materials, small stockpiles and short storage times are unlikely to attract pests or vermin, the risk associated with the site is considered to be negligible and will not be considered further by this ERA.

2.2.4.4 Mud

Mud can be trailed onto the highway by vehicles leaving the site after picking up mud from unpaved roads or from the point of deposit. Access to the site will be via the existing site entrance to the south of the site. Movements to the Phase 3 area of the site will be via maintained access roads and wheel wash. A combination of the distance travelled on the internal haul roads and the wheel wash will ensure any accumulated mud will be removed prior to the vehicle leaving site. If a vehicle is observed to be particularly muddy, the driver will be redirected through the wheelwash.

The primary receptor to entrained mud will be the A19 and connecting service road to the east of site. The wheel wash will be maintained to ensure efficient operation and the haul roads will be maintained by road sweeper. Adjacent access routes will be regularly inspected and cleaned as necessary as part of the current site management controls. The risks associated with entrained mud are considered in Table 5.

2.2.5 Visible Emissions

The wastes types to be accepted are non-flammable, and no wastes will be burnt at the site, therefore the risk of smoke / visible plumes emanating from the site is considered low and will not be considered further in this ERA.

2.2.6 Bioaerosols

The production of bioaerosols is most intensive at the aerobic treatment stage of biodegradable waste such as CLO. When this material is brought to site it will have completed this intensive process with all readily degradable material removed and degraded to a carbon-rich mulch. Bioaerosols are unlikely to be produced when it has reached this stabilised state and care will be taken not to agitate the material further e.g. depositing material from height. Bioaerosols will not be considered further in this ERA.

2.2.7 Accidents

There is potential for accidents to occur during this type of activity which may have a detrimental environmental impact. This can include spillages of fuels or other polluting liquids; fires causing damage to containment measures or generating contaminated liquid; or, deliberate vandalism resulting in pollution similar to the aforementioned. The risks of pollution occurring from accidents and the proposed management measures are discussed further in Table 6.

2.3 Potential Hazard Pathways

When identifying the receptors, the closest and most sensitive (if different from the closest) have been considered in each direction from the hazard and the mechanism of transport to each sensitive receptor (e.g. proximity to highway, access/egress points for mud and wind direction for airborne dust).

2.3.1 Meteorological Conditions

Weather and wind statistics are taken from the Escrick Weather Station[2] located 2.2 km north of the site boundary. The windrose shows that the dominant wind direction is from the west southwest blowing towards the east northeast. The receptors likely to be downwind of the site include Bentley Park Drain and the A19.

[2] Escrick Wind Forecast, North Yorkshire YO19 6 - WillyWeather

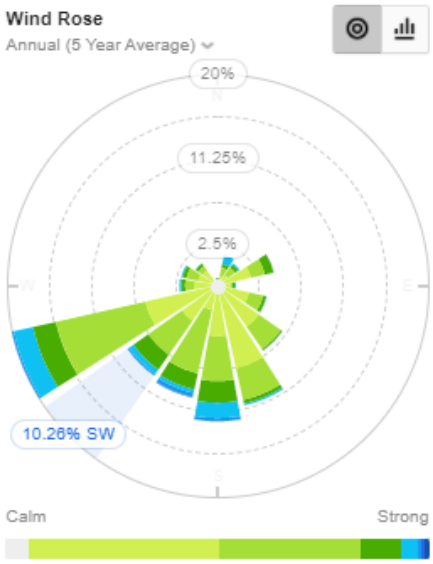

Figure 2.1 – Warton Bank Wind Rose

2.3.2 Probability of Exposure

The probability of exposure is determined by the distance of the receptor to the site and the likelihood of the hazard reaching the receptor i.e. frequency of prevailing wind in that direction. The probability of exposure is irrespective of the type of hazard presented.

2.4 Hazard Receptors

A review of the sensitive receptors within 500m of the site is listed in Table 1 below. The location of each sensitive receptor is indicated in drawing 5259/2/003. The site is located in a predominantly rural setting with neighbouring land use comprising agricultural land. The closest receptor to the site is Bentley Park Drain and the Trans Pennine Trail located <10 m at their closest point. The closest residential receptors are Brickworks Cottages at approximately 225 m east and commercial premises are located approximately 140 m east.

Table 1 – Sensitive Receptors

Receptor Number	Receptor	Receptor Type	Approx Distance from Site Boundary (m)	Direction from Site	Freq (%) of Prevailing Wind Direction
1	Mount Farm	Agricultural / Residential	340	NNW	11.4
2	Brickworks Cottages	Residential	225	E	3.6
3	Escrick Business Park	Commercial	140	E	3.6
4	Glade Farm and Cottages	Agricultural / Residential	300	SE	2.5
5	Trans Pennine Trail	Public Footpath / Local Wildlife Site	<10	W	1.8

Receptor Number	Receptor	Receptor Type	Approx Distance from Site Boundary (m)	Direction from Site	Freq (%) of Prevailing Wind Direction
6	Park Court	Commercial	320	E	3.6
7	A19	Public Highway	300	E	3.6
8	Unnamed Drain / Bentley Park Drain	Watercourse	<10	N - NE	12.6 – 10.3
9	Hollicarrs Wood / Hart's Nook	Local Wildlife Site / Ancient Woodland	490	SE	2.5
10	Glade Farm Fishing Pond	Watercourse	390	S	0.7
11	Gamble's Rush	Deciduous woodland	360	SW	2.5
12	Parkhill Dike	Watercourse	60	W	1.8

A 'Conservation & Heritage Screen' was provided by the Agency. No European Sites, Sites of Special Scientific Interest (SSSI), National Nature Reserve (NNR), Local Nature Reserves (LNR), Scheduled Ancient Monument or Great Crested Newts were identified. It did establish Local Wildlife Site (LWS) York and Selby Cycle Track (aka Trans Pennine Trail) and deciduous woodland along the track and at Escrick Business Park. Protected species were also established to the North of the Site surrounding Glade Farm and Glade Farm Fishing Pond.

A review of Magic Maps showed that there are two priority habitats deciduous woodland and ancient woodland. Ancient woodland is located at Hollicarrs Wood / Hart's Nook. The closest deciduous woodland is located at the Trans Pennine Trial and is also located at Gamble's Rush and above Escrick Business Park. All are included in the Table 1 above.

3 Risk Assessments and Accident Management Plans

3.1 Risk Assessments

The site-specific risk assessments completed for Odour, Noise & Vibration, Dust and Mud are detailed in Tables 2 to 5 below. Where there is an inter-relationship between the specific risk assessment and meteorological conditions, this has been identified. The pathway is determined by the location of the receptor relative to the site, the distance from the boundary (m) and the frequency (likelihood) the prevailing wind will blow in the direction of the receptor (%) as determined by historical wind rose data for Escrick weather station located approximately 2.2 km to the north of the site.

The Mitigated Risk is the residual risk presented by the hazard after control measures have been implemented. This is the most realistic representation of the risk as effective controls will be maintained under the requirements of the environmental permit, planning consent and management procedures set out in the Operator's Environmental Management System (EMS).

3.2 Environmental Accidents

The Agency guidance requires the completion of an Accident Risk Assessment Management Plan. This should assess potential hazards associated with the proposed activity not described in the sections above.

An accident management plan is detailed in Table 6.

Table 2 – Odour Risk Assessment and Management Plan

Hazard / Pathway	Receptor				Probability of Exposure	Unmitigated Consequence	Unmitigated Risk	Risk Management	Mitigated Risk
	No.	Dist* (m)	Direc[n]	Freq* (%)					
Odour through air from: deposition of waste	1	340	NNW	11.4	Medium – proximity to Site, frequently downwind	Medium – odour nuisance (agriculture)	Medium	Waste Acceptance Protocols ensure wastes have low organic content and therefore negligible gas / odour potential Regular olfactory monitoring will be conducted and will take account of meteorological conditions and potential impacts of odour (however unlikely) on receptors. The operator will document all events or complaints received associated with odour, regardless if the site is the likely cause or if it is attributed to another source in accordance with EMS procedures. By recording all such odour events in combination with meteorological conditions, the operator will be in a stronger position to deal with any odour issues effectively. It will be possible to identify the likely source and undertake appropriate remedial action if applicable. In some instances the source may be shown to be off-site and thus beyond the control of the operator	Low
	2	225	E	3.6	Medium – proximity to site, infrequently downwind	High – odour nuisance (residents)	Medium		
	3	140	E	3.6	Medium – close to site, infrequently downwind	High – odour nuisance (workers)	Medium		
	4	300	SE	2.5	Medium – proximity to Site, occasionally downwind	Medium – odour nuisance (agriculture)	Medium		
	5	<10	W	1.8	Medium – close to site, occasionally downwind	Medium – transient odour nuisance (footpath)	Medium		
	6	320	E	3.6	Low – distant to Site, infrequently downwind	High – odour nuisance (workers)	Medium		
	7	300	E	3.6	Medium – proximity to Site, infrequently downwind	Low – transient odour nuisance (road)	Low		
	8	<10	N - NE	12.6 – 10.3	High – close to site, frequently downwind	Low –not sensitive to odour (watercourse)	Low		
	9	490	SE	2.5	Low – distant to Site, occasionally downwind	Low – flora and fauna not sensitive to odour	Low		
	10	390	S	0.7	Low – distant to Site, occasionally downwind	Low –not sensitive to odour (waterbody)	Low		
	11	360	SW	2.5	Low – distant to Site, occasionally downwind	Low – flora and fauna not sensitive to odour	Low		
	12	60	W	1.8	Medium – close to site, occasionally downwind	Low –not sensitive to odour (watercourse)	Low		

Table 3 – Noise and Vibration Risk Assessment and Management Plan

Hazard / Pathway	Receptor				Probability of Exposure	Unmitigated Consequence	Unmitigated Risk	Risk Management	Mitigated Risk
	No.	Dist* (m)	Direc[n]	Freq* (%)					
Noise through air and vibration through ground from: deposition of waste	1	340	NNW	11.4	Low – distant to site	Medium – noise nuisance (agriculture)	Medium	Site located within a relatively isolated location. Recovery activities unlikely to generate noise in excess of the previous clay extraction activities. Planning condition restricts site operational hours On site speed limits will be enforced and internal site roads will be maintained. Appropriate maintenance of site vehicles in accordance with the manufacturers or supplier's instructions Where practicable, engines to be switched off when not in use. All machinery and vehicles will be fitted with effective silencers. Should it prove necessary, alternatives to reversing bleepers will also be considered Deposit of material will not be undertaken from height to reduce noise / vibration	Low
	2	225	E	3.6	Medium – proximity to site	High – noise nuisance (residents)	Medium		
	3	140	E	3.6	High – close to site	High – noise nuisance (workers)	High		
	4	300	SE	2.5	Medium – proximity to site	Medium – noise nuisance (agriculture)	Medium		
	5	<10	W	1.8	High – close to site	Medium – transient noise nuisance (footpath)	Medium		
	6	320	E	3.6	Low – distant to site	High – noise nuisance (workers)	Medium		
	7	300	E	3.6	Medium – proximity to site	Low – transient noise nuisance (road)	Low		
	8	<10	N - NE	12.6 – 10.3	High – close to site	Low – not sensitive to noise (watercourse)	Low		
	9	490	SE	2.5	Low – distant to site	Medium - flora and fauna may be disturbed by excessive noise	Medium		
	10	390	S	0.7	Low – distant to site	Low – not sensitive to noise (waterbody)	Low		
	11	360	SW	2.5	Low – distant to site	Medium - flora and fauna may be disturbed by excessive noise	Medium		
	12	60	W	1.8	High – close to site	Low – not sensitive to noise (watercourse)	Low		

Table 4 – Fugitive Dust Emission Risk Assessment and Management Plan

Hazard / Pathway	Receptor				Probability of Exposure	Unmitigated Consequence	Unmitigated Risk	Risk Management	Mitigated Risk
	No.	Dist* (m)	Direc[n]	Freq* (%)					
Fugitive dust emissions generated by: vehicle movements and handling of waste on site	1	340	NNW	11.4	Medium – proximity to Site, frequently downwind	Medium – dust nuisance (agriculture)	Medium	Weighbridge will conduct assessment of waste inputs and impose controls and restriction on potentially dusty waste. On site vehicle speed limit enforced to ensure that vehicle movements do not generate excessive dust. Dampening of site roads/surfaces as necessary using a tanker during dry periods. Daily visual inspection by appropriate site staff at suitable locations taking account of the prevailing wind direction. A road sweeper will be used to clear any dust deposited on highways if required	Low
	2	225	E	3.6	Medium – proximity to site, infrequently downwind	High – dust nuisance (residents)	Medium		
	3	140	E	3.6	Medium – close to site, infrequently downwind	High – dust nuisance (workers)	Medium		
	4	300	SE	2.5	Medium – proximity to Site, occasionally downwind	Medium – dust nuisance (agriculture)	Medium		
	5	<10	W	1.8	Medium – close to site, occasionally downwind	Medium – transient dust nuisance (footpath)	Medium		
	6	320	E	3.6	Low – distant to Site, infrequently downwind	High – dust nuisance (workers)	Medium		
	7	300	E	3.6	Medium – proximity to Site, infrequently downwind	Medium – transient dust nuisance (road)	Medium		
	8	<10	N - NE	12.6 – 10.3	High – close to site, frequently downwind	Medium – watercourse may be affected by settling dust	Medium		
	9	490	SE	2.5	Low – distant to Site, occasionally downwind	Medium - lora and fauna may be sensitive to excessive dust settlement	Medium		
	10	390	S	0.7	Low – distant to Site, occasionally downwind	Medium – waterbody may be affected by settling dust	Medium		
	11	360	SW	2.5	Low – distant to Site, occasionally downwind	Medium - lora and fauna may be sensitive to excessive dust settlement	Medium		
	12	60	W	1.8	Medium – close to site, occasionally downwind	Medium – watercourse may be affected by settling dust	Medium		

Table 5 – Mud Fugitive Emission Risk Assessment and Management Plan

Hazard / Pathway	Receptor				Probability of Exposure	Unmitigated Consequence	Unmitigated Risk	Risk Management	Mitigated Risk
	No.	Dist* (m)	Direc[n]	Freq* (%)					
Mud generated by: vehicle movements	1	340	NNW	11.4	Low – no direct connection to Site	Not applicable	Low	Tarmac surface in site entrance / access roads will significantly reduce disturbance of ground and production of fugitive mud. Tarmac surfaces will also be easier to clean and remove mud before it becomes a problem off-site. All departing vehicles will be required to use the automatic wheel wash at least once to remove accumulated mud or debris. Site staff at the weighbridge will check departing vehicles. The wheel wash will be subject to regular maintenance to ensure their effectiveness. The integrity of the haul roads will be regularly assessed to ensure the surface is not accumulating mud that could be tracked off site. Repairs will be made to surfaced roads or where potholes / low points are causing water or mud to accumulate. Internal roads will be maintained and cleaned as necessary using a road sweeper. Where mud on the public roads has been positively identified as being associated with the site, then road sweepers will be employed without delay to remove the mud / debris. A daily visual inspection will be made of the public highway and recorded.	Low
	2	515*	E	3.6	Medium - occupants of receptor may pass entrance to the site frequently	High – mud on road hazard	Medium		
	3	190*	E	3.6	High - occupants of receptor may pass entrance to the site frequently	High – mud on road hazard	High		
	4	270*	SE	2.5	High - occupants of receptor may pass entrance to the site frequently	High – mud on road hazard	High		
	5	<10	W	1.8	Low – no direct connection to Site	Not applicable	Low		
	6	515*	E	3.6	Medium - occupants of receptor may pass entrance to the site frequently	High – mud on road hazard	Medium		
	7	315*	E	3.6	High – direct connection	High – mud on road hazard	High		
	8	<10	N - NE	12.6 – 10.3	Low – no direct connection to Site	Not applicable	Low		
	9	490	SE	2.5	Low – no direct connection to Site	Not applicable	Low		
	10	390	S	0.7	Low – no direct connection to Site	Not applicable	Low		
	11	360	SW	2.5	Low – no direct connection to Site	Not applicable	Low		
	12	60	W	1.8	Low – no direct connection to Site	Not applicable	Low		

Notes: *distance by road

Table 6 – Accident Management Plan

Hazard	Receptor	Pathway	Probability	Consequence	Overall Risk	Risk Management	Mitigated Risk
Fuel / engine oil Leak or damage to portable fuel bowser, static fuel storage tank or site vehicles	Groundwater	Base of quarry	Low	High - pollution of groundwater	Medium	Fuel and engine oils stored in a separate area with appropriate secondary containment and spillage contingencies; Site vehicles will not be refuelled within the recovery area; Site vehicles and plant subject to regular preventative maintenance in accordance with EMS procedures.	Low
Fire Uncontrolled burning of wastes, or site vehicles.	Groundwater	Base of quarry	Low	High - pollution of groundwater through firewater run-off or leaks from damaged equipment	Medium	Wastes to be accepted at site will have a low organic content and inherently non-combustible in nature; Site vehicles and plant subject to regular preventative maintenance in line with site EMS procedures; Fire control equipment will be on hand, with major incidents to be dealt with by the Fire Brigade in accordance with site EMS procedures. No smoking except in designated areas.	Low
	Receptors (Table 1)	Airborne	Low	Medium - smoke / odour annoyance	Medium		
Explosion Compressed gas cylinders, or fuel storage tank	Site staff	Airborne	Low	High - danger of serious injury	Medium	Fuel is stored in a separate area with appropriate controls to prevent fire or explosion (i.e. no smoking on site); Compressed gases not required and therefore not present for recovery activities;	Low
	Groundwater	Base of quarry	Low	High - pollution of groundwater through leaks from damaged equipment	Medium		
Wastes deposited Chemical reaction of incompatible wastes	Receptors (Table 1)	Airborne	Low	Medium - odour annoyance or smoke from oxidising agents	Medium	Waste acceptance protocols will exclude the deposit of chemically reactive wastes.	Low
Vandalism Damage to site vehicles, fuel bowsers, gas or leachate extraction pipework	Groundwater	Base of quarry	Low	High - pollution of groundwater through leaks from damaged equipment	Medium	Existing site security will prevent access by unauthorised persons. Vehicles will be kept overnight in a secure area with appropriate security measures;	Low
	Receptors (Table 1)	Airborne	Low	Medium - odour annoyance	Medium		

4 Conclusions

The operational hazards associated with the proposed recovery activity have been considered in the tables above. It has been concluded that with the use of appropriate mitigating controls where necessary, the activity does not present a significant risk to surrounding receptors.

The potential hazards for emissions to groundwater and surface water, noise & vibration, dust, mud and accidents have been considered and the risks associated have been reduced and managed as far as is reasonably practicable. The most sensitive receptors have been identified and their impacts of any emissions from sites have been addressed with mitigation measures in place. As a result, it is considered that any emissions from the construction of the screening bund will not have a detrimental impact on the sensitive receptors identified.

Appendix A – Drawings

A1

GENERAL NOTES

NOTES:

1. ALL DIMENSIONS IN MILLIMETRES AND ALL LEVELS IN METRES ABOVE ORDNANCE DATUM.

2. DO NOT SCALE FROM THIS DRAWING.

3. ANY ANOMALIES IDENTIFIED WITH THE DETAILS SHOWN ON THIS DRAWING ARE TO BE BROUGHT TO THE ATTENTION OF BYRNE LOOBY PRIOR TO CONSTRUCTION WORKS COMMENCING.

LEGEND:

- Permit Boundary
- Buffer Zone
- (1) Receptor Marker

Rev	Date	Description	By	Chk	App

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CLIENT: Escrick Environmental Services Limited

PROJECT: Escrick Screening Bund

DRAWING TITLE: Receptor Plan

STATUS: FOR CONSTRUCTION

Date: 28/04/22	Scale: 1:4000	Drawn: JM	Chk: MR	App: JB
Project No: 5259	Drg. No: 5259.2.003			Rev: 00

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