AN APPLICATION FOR AN ENVIRONMENTAL PERMIT TO AUTHORISE THE DEPOSITION OF WASTE ON LAND AS A RECOVERY ACTIVITY FOR THE RESTORATION OF ESCRICK QUARRY, NORTH YORKSHIRE

NUISANCE AND AMENITY ENVIRONMENTAL RISK ASSESSMENT (ERA)

Report reference: PL/ES/LJB/5689/01/ERA
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1. Introduction

1.1 MJCA is commissioned by Plasmor Limited (Plasmor) to prepare and submit an application for a bespoke Environmental Permit for the deposition of waste on land as a recovery activity in order to restore Escrick Quarry, North Yorkshire to agricultural and nature conservation interest including water bodies and wetland habitats. This document comprises a nuisance and amenity environmental risk assessment (ERA) prepared to support the application based on the risk screening matrix provided in Table ERA 1 and the assessment presented in Table ERA 2.

1.2 The ERA considers potential receptors and pathways for impacts based on the understanding of the environment surrounding the site that is presented in the Environmental Setting and Site Design (ESSD) report presented at Appendix E to the application report and in particular Figure ESSD 1, Figure ESSD 2 and the maps included in the Envirocheck reports provided at Appendix ESSD D to the ESSD report. The assessment of the risks associated with the restoration of the site is based on the information on the design and operation of the site described in the ESSD report and the general principles in the Environment Agency guidance "Risk assessments for your environmental permit" published on the GOV.UK website on 1 February 2016 and last updated on 31 August 2022.

1.3 The selection of potential receptors has been informed by information presented on the Defra MAGIC website and the Environmental Statement (ES) prepared in support of the application for planning permission reference C8/2019/0917/CPO. This risk assessment takes into consideration receptors within 500m of the site with the exception of statutorily designated nature conservation sites for which the relevant distance is up to 2km.

1.4 Based on information from the Defra MAGIC website and the EA nature and heritage conservation screen there are no Sites of Special Scientific Interest (SSSI), Special Protection Areas (SPA), Special Areas of Conservation (SACs), Ramsar Sites, National Nature Reserves (NNRs) or Local Nature Reserves (LNR) or Local Wildlife Sites (LWS) located within 2km of the site. The closest designations identified in the vicinity of the site is the Acaster South Ings (SSSI) located approximately 2.9km northwest of the site and the Skipwith Common (SSSI, NNR, and SAC) located approximately 3.1km southeast of the site.

1.5 There are no Scheduled Monuments, World Heritage Sites or Listed Buildings within 500m of the site. The nearest listed buildings are the Garden Temple and the Gate Piers to Escrick Park both of which are Grade II* listed buildings and are located approximately 1.4km east and 1.4km south of the site boundary, respectively.

2. Conclusions

2.1 The ERA presented in Table ERA 2 that has been completed to support the application demonstrates that the operation of the facility has a low or very low risk of adverse impact on the surrounding environment including sites of heritage or nature conservation interest.

TABLES

Table ERA 1 Risk screening matrix (deposit of waste on land as a recovery activity)

RISK TYPE	ODOUR		NOISE AND VIBRATION		FUGITIVE EMISSIONS								
					PARTICULATE MATTER				LITTER		BIRDS, VERMIN AND INSECTS		MUD ON THE ROAD
GENERIC HAZARDS / GENERIC RECEPTORS[1]	Waste storage and handling	Waste delivery	Waste delivery	Waste storage and handling	Waste delivery	Waste storage and handling	Restored surfaces	Access routes	Waste delivery	Waste storage and handling	Waste delivery	Waste deposition	Vehicle Movements
DOMESTIC DWELLING			x	x	x	x	x	x					
SCHOOLS AND COLLEGES													
HOSPITALS													
OFFICES/COMMERCIALPREMISES			x	x	x	x	x	x					
INDUSTRIAL PREMISES													
PUBLIC FOOTPATH OR BRIDLEWAY			x	x	x	x	x	x					
HIGHWAYS OR ROADS					x	x	x	x					x
PARKS AND PUBLIC OPEN SPACES													
FARMLAND WITH LIVESTOCK			x	x	x	x	x	x					
FARMLAND ARABLE					x	x	x	x					
PRIORITY HABITAT					x	x	x	x					
NATURE SITE OF LOCAL IMPORTANCE (e.g. LNR, CWS)													

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GENERIC HAZARDS / GENERIC RECEPTORS[1]	Waste storage and handling	Waste delivery	Waste delivery	Waste storage and handling	Waste delivery	Waste storage and handling	Restored surfaces	Access routes	Waste delivery	Waste storage and handling	Waste delivery	Waste deposition	Vehicle Movements
SITE OF SPECIAL SCIENTIFIC INTEREST (within 2km)													
SPECIAL AREA OF CONSERVATION (within 2km)													
SPECIAL PROTECTION AREA OR OTHER RELEVANT SSSI (within 2km)													
LISTED BUILDINGS (within 500m)													
SCHEDULED MONUMENT (within 500m)													
AIRPORT													
RAILWAY													
SURFACE WATER					**x**	**x**	**x**	**x**					

x = generic receptor type present and generic hazard considered as part of this assessment set out in Table ERA 2

[1] All generic receptors within 500m have been identified unless an alternative distance has been identified.

Table ERA 2 – Assessment of nuisance and amenity risks associated with the permanent deposit of inert waste at Escrick Quarry

What do you do that can harm and what could be harmed?			Assessing the risk			Managing the risk	
Hazard	Receptor (see Table ESSD 2)	Pathway	Probability of exposure	Consequence	What is the overall risk?	Risk management	What is the residual risk?
What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	How likely is this contact?	What is the harm that can be caused?	What is the risk? The balance of probability and consequence	What measures will you take to reduce the risk? If it occurs – who is responsible for what?	What is the risk that still remains?
Odour							
There are no potential sources of odour at the site.	Local human population	Air	Very low	Nuisance from odour	Very low	The wastes will be inert wastes. Waste acceptance procedures will be in place.	Negligible
Noise							
Mobile plant and vehicles including waste deposition	Local human population	Air	Medium to low	Nuisance from noise	Medium to low	The potential impacts of noise from the development have been assessed as part of the planning regime and the control of noise is the subject of conditions of the planning permission for the site.	Very low
Vibration							
Mobile plant and vehicles including waste deposition	Local human population	Ground	Low to very low	Nuisance from vibration	Medium to low	Potential sources of vibration are limited to site-based activities only. It is considered that these are more likely to be associated with ground borne vibration rather than transmissions of vibration through the air. Based on the nature and location of the proposed activities it is considered unlikely that ground borne vibration will have a significant effect on potential receptors within the vicinity of the site. In the unlikely event that vibration becomes an issue in respect of the permitted operations at	Very low

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What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	How likely is this contact?	What is the harm that can be caused?	What is the risk? The balance of probability and consequence	What measures will you take to reduce the risk? If it occurs – who is responsible for what?	What is the risk that still remains?
						the site a vibration management plan will be prepared and implemented.	
Fugitive emissions							
Particulates from access routes, waste delivery, waste storage and waste deposition	Local human population / properties / farmland arable / public highway / water bodies / sensitive habitat	Air	Low	Deposition of particulate matter	Medium to low	A Dust and Particulate Matter Emissions Management Plan (DEMP) has been prepared to support the operation of the site (Appendix H to the permit application). The DEMP describes the operations at the site which may have the potential to have an impact on air quality as a result of emissions of particulate matter, describes the operational controls which are implemented to minimise emissions and describes the monitoring which is carried out to confirm the effectiveness of the management controls.	Low to very low
The inert wastes that will be accepted have a very low potential to generate gas						Waste deposited in the site will be under close visual observation by site personnel at all times during placement and levelling when the presence of biodegradable waste materials in the waste will be clearly visible so that biodegradable materials inadvertently deposited can be removed. The site waste acceptance and operational procedures will provide confidence that the deposited waste is inert (Appendix K to the permit application).	Negligible
The inert wastes that will be accepted have a very low potential						Acceptance procedures will be in place. The inert waste types to be accepted at the site have a very low potential to generate litter, attract scavenging animals and scavenging birds or insects.	Negligible

What do you do that can harm and what could be harmed?			Assessing the risk			Managing the risk	
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What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	How likely is this contact?	What is the harm that can be caused?	What is the risk? The balance of probability and consequence	What measures will you take to reduce the risk? If it occurs – who is responsible for what?	What is the risk that still remains?
to generate litter or to attract birds, vermin or insects.							
Mud and debris deposited on the public highway	Public highway	Vehicle movements	Low	Mud on the public highway	Low	Wheel cleaning facilities are provided in the site reception area. Vehicles associated with waste operations will use the wheelwash when travelling from the site to the public highway. All site roads will be inspected daily and maintained in a condition consistent with minimising the risk of the accumulation of mud and debris on the highway. A mobile road sweeper will be used as necessary.	Low
Accidents							
Waste stored and deposited on site	Local human population gaining unauthorised access to the waste operation	Direct physical contact	Low	Bodily injury	Low	The inert waste types that will be accepted at the site should not cause harm to human health by virtue of their composition. Security measures which are implemented currently in respect of the existing mineral extraction operations comprising the use of fencing, safety signs and regular inspections will continue to be implemented to minimise the potential for unauthorised entry to the site. The site gates are locked outside normal working hours.	Very low
Vehicle movements on site	Local human population gaining unauthorised	Direct physical contact	Low	Bodily injury	Medium	Security measures are implemented currently in respect of the existing mineral extraction operations and will continue to be implemented to minimise the potential for unauthorised entry to the	Low

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What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	How likely is this contact?	What is the harm that can be caused?	What is the risk? The balance of probability and consequence	What measures will you take to reduce the risk? If it occurs – who is responsible for what?	What is the risk that still remains?
	access to the site					site. Vehicles will employ suitable non-tonal reversing alarms.	
Accidental release of fuel	Water resources	Infiltration to ground	Low	Contamination of water resources	Medium	Company operational, maintenance, inspection and accident management procedures are in place and will continue to be implemented. Spillage kits are available and site personnel are trained in their use.	Low

What do you do that can harm and what could be harmed?			**Assessing the risk**			**Managing the risk**	
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What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	How likely is this contact?	What is the harm that can be caused?	What is the risk? The balance of probability and consequence	What measures will you take to reduce the risk? If it occurs – who is responsible for what?	What is the risk that still remains?
Flooding	The generic receptors identified in Table ERA 1	Flood waters	Low	Flooding associated with the generic receptors identified in Table ERA 1	Low	Based on the information provided on the GOV.UK Flood map for planning website the site is located substantially in Flood Zone 2 which is defined in the National Planning Policy Framework (NPFF) and associated Planning Practice Guidance (PPG) as land having between a 1 in 100 and 1 in 1,000 annual probability of river flooding. Small parts of the planning application boundary are located in Flood Zone 1 and Flood Zone 3. Flood Zone 1 is defined as land assessed as having a less than 1 in 1000 annual probability of river flooding and Flood Zone 3 is defined as land having 1 in 100 or greater annual probability of river flooding. Flood risk, mitigation and surface water management are addressed in the Flood Risk Assessment (FRA) that was prepared in support of the application for planning permission reference C8/2019/0917/CPO[1].	Low
Fire	Atmospheric emissions	Air	Very low	Nuisance from smoke and odour Contamination of water resources	Very low	As the materials deposited at the site will be inert and therefore non-flammable and non-combustible the risk of occurrence of fires is negligible. As a result associated risks from fire-fighting water being discharged to controlled waters are negligible.	Negligible

[1] The FRA is presented in section 13 of the July 2019 Environmental Statement reference PL/ES/SE/1683/01/ESF

What do you do that can harm and what could be harmed?			**Assessing the risk**			**Managing the risk**	
Hazard	Receptor (see Table ESSD 2)	Pathway	Probability of exposure	Consequence	What is the overall risk?	Risk management	What is the residual risk?
What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	How likely is this contact?	What is the harm that can be caused?	What is the risk? The balance of probability and consequence	What measures will you take to reduce the risk? If it occurs – who is responsible for what?	What is the risk that still remains?
Waste operations may cause harm to and deterioration of nature conservation sites.	Protected sites - European sites and SSSIs	Air or run off	Very Low	Harm to protected site through contamination, nutrient enrichment, smothering, disturbance, predation etc.	Very Low	There are no Sites of Special Scientific Interest, Special Areas of Conservation or Special Protection Areas within 2km of the site. It is considered that the potential hazards from the permitted activities pose a negligible risk to the SSSI.	Negligible
Waste operations may cause harm to and deterioration of nature conservation sites.	Wildlife sites of regional or local importance and protected habitat	Air or run off	Low	Harm to protected site through toxic contamination, nutrient enrichment, smothering, disturbance, predation etc.	Low	The closest Priority Habitat identified in the vicinity of the site is an areas of Deciduous Woodland located adjacent to and north and south of the site. Measures are in place to minimise the risk of unacceptable impacts from the waste operations on the surrounding environment which will be protective also of the Priority Habitats. It is considered that the potential hazards from the permitted activities pose a negligible risk to the Priority Habitats. There are no other wildlife sites of regional or local importance and protected habitats within 2km of the site.	Very low
Waste operations may cause harm to and deterioration of heritage conservation sites.	Designated heritage sites – Scheduled Monuments and Listed Buildings	Direct physical contact	Low	Deterioration of designated heritage sites	Low	There are no Scheduled Monuments, World Heritage Sites or listed buildings within 500m of the site.	Negligible