

CONNINGBROOK BALLAST HOLE

Environmental Permit Application

Environmental Risk Assessment

Prepared for: Brett Aggregates Limited

Client Ref: 416.01009.00228

SLR Ref: 416.01009.00228.
Version No: Final v1
December 2019



BASIS OF REPORT

This document has been prepared by SLR Consulting Limited with reasonable skill, care and diligence, and taking account of the manpower, timescales and resources devoted to it by agreement with Brett Aggregates Limited (the Client) as part or all of the services it has been appointed by the Client to carry out. It is subject to the terms and conditions of that appointment.

SLR shall not be liable for the use of or reliance on any information, advice, recommendations and opinions in this document for any purpose by any person other than the Client. Reliance may be granted to a third party only in the event that SLR and the third party have executed a reliance agreement or collateral warranty.

Information reported herein may be based on the interpretation of public domain data collected by SLR, and/or information supplied by the Client and/or its other advisors and associates. These data have been accepted in good faith as being accurate and valid.

The copyright and intellectual property in all drawings, reports, specifications, bills of quantities, calculations and other information set out in this report remain vested in SLR unless the terms of appointment state otherwise.

This document may contain information of a specialised and/or highly technical nature and the Client is advised to seek clarification on any elements which may be unclear to it.

Information, advice, recommendations and opinions in this document should only be relied upon in the context of the whole document and any documents referenced explicitly herein and should then only be used within the context of the appointment.

CONTENTS

1.0	INTRODUCTION	1
1.1	Methodology.....	1
2.0	IDENTIFYING THE RISKS	3
3.0	SITE SETTING & RECEPTORS	4
3.1	Site Setting	4
3.1.1	Conningbrook Lakes Country Park Development Area	4
3.1.2	Transport Network	4
3.1.3	Commercial and Industrial Premises	4
3.1.4	Residential.....	4
3.1.5	Surface Water Features	5
3.1.6	Open ground.....	5
3.1.7	Recreational	5
3.2	Geology.....	5
3.3	Hydrogeology.....	5
3.3.1	Source Protection Zones	5
3.3.2	Aquifer Designations	5
3.4	Hydrology.....	5
3.4.1	Flooding.....	5
3.5	Ecology.....	6
3.5.1	European/International Sites.....	6
3.5.2	Nationally Designated Sites.....	6
3.6	Cultural and Heritage.....	6
3.7	Identified Receptors.....	7
3.8	Windrose.....	8
4.0	ENVIRONMENTAL RISK ASSESSMENT	9
4.1	Amenity and Accidents Risk Assessment	9
5.0	CONCLUSION.....	25

DOCUMENT REFERENCES

TABLES

Table 3-1 Surrounding Land Uses.....	4
--------------------------------------	---

Table 3-2 Identified Receptors	7
Table 4-1 Odour Risk Assessment and Management Plan.....	10
Table 4-2 Noise Risk Assessment and Management Plan.....	11
Table 4-3 Fugitive Emissions Risk Assessment and Management Plan.....	13
Table 4-4 Accidents Risk Assessment and Management Plan	20

FIGURES

Figure 3-1 Lydd Meteorological Station, 2018	8
--	---

DRAWINGS

Drawing 001	Site Location Plan
Drawing 002	Environmental Permit Boundary
Drawing 003	Environmental Site Setting

APPENDICES

Appendix ERA1	Environment Agency Nature and Conservation Screen
---------------	---

1.0 Introduction

Brett Aggregates Limited (Brett) has instructed SLR Consulting Limited (SLR) to prepare an Environmental Risk Assessment (ERA) in support of an Environmental Permit (EP) application. The application seeks approval for the use of waste in the restoration of a 'ballast hole' (arising from the historic removal of sand and gravel) near to the Conningbrook Recycling Facility (Ref: XP3394VP) owned and previously operated by Brett. Herein the facility will be referred to as 'the Site'.

1.1 Methodology

This Environmental Risk Assessment (ERA) is an assessment of the risks to the environment and to human health from accidents, odour, noise and fugitive emissions that may be associated with the proposed operations at the Site.

The assessment has been completed in accordance with the Environment Agency (EA) Technical Guidance '*Risk Assessments for your Environmental Permit*' dated May 2018¹. The aim of the assessment is to identify any significant risks and demonstrate that the risk of pollution or harm will be acceptable by taking the appropriate measures to manage these risks.

This ERA uses the following approach for identifying and assessing the risks from the proposed operation:

- Step 1** Identify risks and sources of risk from your activity.
- Step 2** Where risks are identified from Step 1 then identify the receptors that could be affected.
- Step 3** Identify potential pathways between the sources of risk and receptors.
- Step 4** Assess the risks and check that they are acceptable. Justify appropriate measures to control your risks, if necessary.
- Step 5** Submit your assessment.

Section 2.0 of this document is a screening step to identify the risks requiring consideration as part of this assessment.

Section 3.0 identifies people or parts of the environment that could be harmed (at potentially significant risk) by the activity. The ERA for an EP application requires all receptors that are near the Site and could reasonably be affected by the activities to be identified and considered as part of the assessment.

For the purposes of this ERA the following distances have been used to identify potentially sensitive receptors:

- A 1km radius from the Site's EP boundary has been used to identify potentially sensitive receptors of European ecological importance including RAMSAR sites, Special Areas of Conservation (SAC) and Special Protection Areas (SPA);
- A 1km radius from the Site's EP boundary has been adopted in reviewing potentially sensitive receptors of ecological importance along with features such as sites of cultural and natural heritage. This includes National Nature Reserves (NNR), Local Nature Reserves (LNR) and Sites of Special Scientific Interest (SSSI), in line with EA guidance; and
- A radius of 500m from the Site's EP boundary has been adopted for all other potentially sensitive receptors (for example, residential, commercial, industrial, agricultural and surface water receptors).

¹ Environment Agency - '*Risk Assessments for your Environmental Permit*' May 2018, <https://www.gov.uk/guidance/risk-assessments-for-your-environmental-permit>, accessed August 2019.

Section 4.0 of this document presents the assessment and demonstrates that any risks of pollution or harm will be mitigated to manage the risk.

This ERA should be read in conjunction with the following documents submitted with this EP application:

- Non-Technical Summary;
- Waste Recovery Plan;
- Environmental Setting and Site Design;
- Waste Acceptance Criteria and Waste Acceptance Procedure (WAC and WAP) document;
- Dust Management Plan;
- Site Condition Report; and
- Operating Techniques.

2.0 Identifying the Risks

Step 2 is a screening step to identify the potential risks to the environment from the development. The following are generally considered to require assessment for bespoke operations:

- Amenity and Accidents;
- Site Waste (Installations Only);
- Global Warming Potential;
- Odour;
- Noise; and
- Point source emissions to air, water and land.

There will be no point source emissions to groundwater, surface water, air or land resulting from the proposed application and neither will there be any site waste arising or global warming potential.

Therefore only 'Amenity and Accidents', remains applicable for assessment in this instance, and includes the consideration of odour, noise and vibration, fugitive emissions (including dust, mud, litter and pests) and accidents.

3.0 Site Setting & Receptors

3.1 Site Setting

Conningbrook is located to the northeast of Ashford and northwest of Junction 10 of the M20 in the county of Kent. The Site is accessed via Willesborough Lane, approximately 200m to the southwest. The National Grid Reference for the Site is TR 02929 43897.

The Site is located within the existing Conningbrook Quarry complex, now being decommissioned, close to the former mineral processing area and areas of historic mineral extraction, at the location shown on Drawing 001.

Table 3-1 below summarises the surrounding land uses, all of which are illustrated on Drawing 003

Table 3-1
Surrounding Land Uses

Boundary	Description
North	A railway directly to the north, beyond which lies areas of agricultural/open land.
East	The Conningbrook Quarry Complex containing the now decommissioned Conningbrook Recycling Facility is to the east. Beyond this lies the Conningbrook Lakes Country Park which is currently undergoing development to construct residential properties and recreational facilities.
South	An area of open ground directly to the south, beyond which is the Julie Rose Stadium and the A2070.
West	The railway and the A2070 lie to the west followed by areas open ground and beyond is residential properties within Ashford.

The immediate surrounding land use is described in further detail below:

3.1.1 Conningbrook Lakes Country Park Development Area

The Conningbrook Lakes Country Park is currently under development with residential properties and recreational facilities under construction. The residential properties are currently unoccupied and are unlikely to be occupied until the completion of the country park. The country park lies adjacent to the eastern boundary of the site.

3.1.2 Transport Network

A railway line runs adjacent to the west of the Site and to the north. Beyond the railway line to west is the A2070, approximately 50m from the Site's boundary.

3.1.3 Commercial and Industrial Premises

Commercial and industrial premises are located approximately 90m to the southwest of the Site's boundary and include the Premier Foods Batchelors Factory.

3.1.4 Residential

The closest occupied residential properties, at present, are located approximately 110m to the west within Ashford along Willesborough Road. Conningbrook Manor lies approximately 240m to the south.

3.1.5 Surface Water Features

Surface water bodies associated with historic quarrying activities are located to the north, east and south of the Site's boundary as illustrated on Drawing 003. The closest of these lies 90m south east of the Site's boundary. The River Great Stour lies to the east of the Site's boundary approximately 280m from the Site.

3.1.6 Open ground

Restored mineral workings and agricultural land lies adjacent to the quarry complex to the north, west and south. The closest of these areas lie adjacent to the northern and southern boundaries.

3.1.7 Recreational

The Julie Rose Stadium is located approximately 10m to the south of the Site's boundary.

3.2 Geology

A review of the British Geological Survey (BGS) map² reveals that the Site is underlain by a bedrock of Folkestone Formation (sandstone). The bedrock is indicative of an area previously dominated by shallow seas. For the majority of the Site no superficial deposits have been recorded. However, for a small proportion of the north of the Site the superficial deposits have been classified as Head (clay and silt) which is indicative of an area previously dominated by subaerial slopes. For the far east of the Site the superficial deposits have been classified as River Terrace Deposits (sand and gravel).

3.3 Hydrogeology

3.3.1 Source Protection Zones

The Site is not located within a Source Protection Zone (SPZ) or within close proximity to one.

3.3.2 Aquifer Designations

The bedrock underlying the Site is classified as a Principal Aquifer on the Multi-Agency Information for the Countryside (MAGIC)³ website.

The Groundwater Vulnerability layer on the MAGIC map reveals that the Site lies within an area known for groundwater vulnerability classified as a Major Aquifer Intermediate.

3.4 Hydrology

There are numerous surface water features located within the vicinity of the Site's boundary as detailed in Section 3.1.5 and on Drawing 003.

3.4.1 Flooding

The Site lies within Flood Zone 1 and therefore has a low probability of flooding⁴.

² British Geological Survey, Available at www.bgs.ac.uk, accessed in August 2019.

³ Multi-Agency Information for the Countryside – Available at: <http://www.magic.gov.uk>, accessed August 2019.

⁴ Flood Map for Planning <https://flood-map-for-planning.service.gov.uk>, accessed August 2019

3.5 Ecology

3.5.1 European/International Sites

The MAGIC map website has been accessed to determine the presence of any European or Internationally designated sites within a 1km radius from the Site's EP boundary. This search confirmed that there are none of the following within 1km of the Site's boundary:

- RAMSAR sites;
- Special Area of Conservation (SAC);
- Sites of Scientific Interest (SSSI); and
- Special Protection Areas (SPA).

3.5.2 Nationally Designated Sites

The MAGIC map website has been assessed to determine the presence of any Nationally Designated sites within a 1km radius from the Site's EP boundary. The search identified the following:

- Ancient Woodland – numerous pockets of ancient woodland are located to the east and southeast of the site. The closest pocket of ancient woodland is approximately 950m from the Site's boundary.

The EA screening (Appendix ERA1) identified the following within 1km from the Site's boundary:

- Local Wildlife Site (LWS) – the River Great Stour is a designated LWS which is located to the east of the Site; and
- The River Great Stour is protected for European eel and is classified as a European eel migratory route.

The searches confirmed that there are none of the following within 1km of the Site's boundary;

- National Nature Reserves (NNR);
- Local Nature Reserves (LNR);
- Areas of Outstanding Natural Beauty (AONB); and
- National Parks.

3.6 Cultural and Heritage

Searches on the MAGIC map website has also confirmed that there are none of the following within 1km of the Site's boundary:

- National Forest;
- Schedule Monuments;
- World Heritage Sites;
- Registered Parks and Gardens; and
- Registered Battlefields.

There are several Grade II listed buildings within 1km of the Site's boundary, as shown on Drawing 003. The closest of which is Conningbrook Manor, located 240m to the south.

3.7 Identified Receptors

Table 3-2 below shows the locations of receptors that are considered to be potentially sensitive and could reasonably be affected by the operations carried out on site.

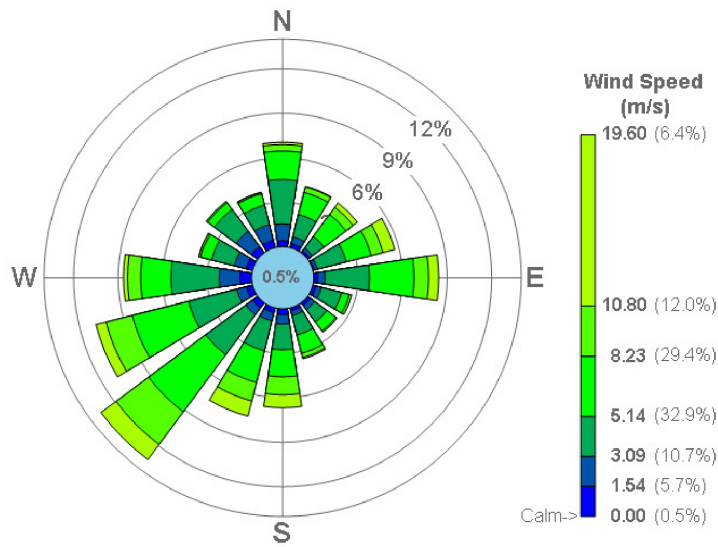
**Table 3-2
 Identified Receptors**

Receptor Name	Receptor Type	Direction from Site	Approximate Distance from Site Boundary (in metres)
Sources Pathways and Receptors located within 500m of the EP boundary as shown on Drawing 003.			
Railway line	Local rail network	West	Adjacent
Ares of open ground	Open ground	North and south	Adjacent
Conningbrook Lakes Country Park Development Area	Country Park	East	Adjacent
Julie Rose Stadium	Recreational Facility	South	20
A2070	Local road network	West	50
Premier Foods Batchelors Factory	Commercial and Industrial premises	Southwest	90
Surface water bodies associated with historic quarrying activities	Surface Water Feature	North, east and south	90
Willesborough Road	Residential	West	110
Conningbrook Manor	Residential	South	240
River Great Stour	Surface Water Feature	East	280
Principal Aquifer	Aquifer Designation	N/A	N/A
Cultural and Natural Heritage identified receptors located within 1km of the EP boundary as shown within Appendix ERA1 and on Drawing 003.			
Conningbrook Manor	Listed building	South	240
Great River Stour	LWS, Protected species and eel migratory route	East	280
Ancient Woodland	Ancient woodland	East and south east	950

3.8 Windrose

Figure 3-1 shows the wind patterns in 2018 as identified by the Lydd meteorological station. The most prominent wind direction is from the southwest to the northeast. Winds from the west and east are frequent with winds from all other directions being relatively infrequent.

Figure 3-1
Lydd Meteorological Station, 2018



4.0 Environmental Risk Assessment

4.1 Amenity and Accidents Risk Assessment

The following tables (4.1 - 4.4) in this section assess the Site in terms of potential hazards posed to amenity and by accidents, the associated receptors and pathways, along with measures to manage the identified risks.

The probability of exposure is the likelihood of the receptors being exposed to the hazard, and is defined as low, medium or high. These terms are qualified as follows;

- Low: exposure is unlikely, barriers in place to mitigate against exposure.
- Medium: exposure is fairly probable, barriers to exposure less controllable.
- High: exposure is probable, direct exposure likely with few barriers.

The methodology outline in Section 1.1 of this report is the basis on which it is determined whether the proposed operations will lead to significant impacts on the surrounding environment. Where a conclusion of 'not significant' has been reached, it is proposed that the mitigation and management measures that will be in place at the Site will be sufficient to ensure that there will be no impact at the surrounding environment.

There will be no point source emissions to surface water, groundwater or air resulting from the proposed development and neither will there be any Site waste arising or global warming potential. Therefore, it is only considered to be applicable for standard assessment in this instance, and includes the consideration of odour, noise and vibration, fugitive emissions (including dust, mud, litter and pests) and accidents in relation to the proposed development.

Table 4-1
Odour Risk Assessment and Management Plan

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall 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?	What measures will you take to reduce the risk? – Who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
<p>Odours from the acceptance, treatment, storage and placement of waste</p> <p>Waste codes include 17 09 04 and 19 12 12</p>	<p>Receptors as identified in Table 3-2.</p> <p>See Drawing 003 and Appendix ERA1.</p>	Air.	<p>The two waste types to be accepted, stored and recovered on site will not be odorous in nature.</p> <p>The dominant wind direction is from the south west to the north east which is in the direction of the Conningbrook Lakes Country Park construction site.</p> <p>The WAC and WAP document included within Section 5 of this EP application will ensure that only authorised EWC codes will be accepted on site.</p>	Negligible.	Odour nuisance and loss of amenity.	Not significant due to the nature of the waste types detailed in the Waste Recovery Plan.

Table 4-2
Noise Risk Assessment and Management Plan

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall 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?	What measures will you take to reduce the risk? – Who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
<p>Noise from vehicular movements (site access road and internal haul roads).</p> <p>Noise from the operation of site plant related to:</p> <ul style="list-style-type: none"> • loading and unloading of materials; and • Campaign screening and crushing of waste. 	<p>Receptors as identified in Table 3-2.</p> <p>See Drawing 003 and Appendix ERA1.</p>	Air.	<p>The site will be operational during the working hours specified within the associated planning permission.</p> <p>Speed limits will be implemented for vehicles using the site and traffic calming measures will be implemented to enforce speed limits.</p> <p>Site access areas and operational areas will be maintained and repaired to minimise emissions of noise due to uneven and poor surfacing.</p> <p>Plant will be switched off when not in use.</p> <p>Where required, plant will be selected and operated to minimise noise.</p> <p>All site plant and machinery will be operated and maintained in accordance with manufacturer's specifications and through a programme of planned preventative maintenance.</p>	Low - Intermittent throughout the day.	Noise nuisance during operational hours.	Not significant.

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall 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?	What measures will you take to reduce the risk? – Who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
			<p>Plant will be fitted with noise silencers if necessary.</p> <p>Where appropriate, drop heights will be minimised to prevent emissions of noise.</p> <p>Auditory inspections will be carried out daily and in response to complaints. If noise levels are deemed a nuisance a full investigation will be carried out and mitigation measures implemented when appropriate.</p> <p>The dominant wind direction is from the south west to the north east which is in the direction of the Conningbrook Lakes Country Park construction site.</p> <p>Brett will be responsible for implementing risk management measures in accordance with Brett QHEST procedures as outlined in the Operating Techniques.</p>			

Table 4-3
Fugitive Emissions Risk Assessment and Management Plan

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall 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?	What measures will you take to reduce the risk? – Who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
To Air:						
Dust from: <ul style="list-style-type: none"> • Vehicle movements • Waste deposition/tipping operations • Campaign screening and crushing of waste. Potential release of pollutants (PM10, NOx etc) from traffic.	Receptors as identified in Table 3-2. See Drawing 003 and Appendix ERA1.	Air.	A Dust Management Plan is included within Section 9 of the EP application. A summary of the key mitigation measures is provided below. A speed limit will be implemented on site alongside traffic calming measures to minimise the mobilisation of dust particles from traffic movements. All vehicles and mobile plant will be subject to a programme of planned preventative maintenance and will be maintained in accordance with the manufacturer's recommendations. Site surfacing will be maintained in good condition to minimise the mobilisation of dust particles. Site operatives will carry out ongoing visual monitoring throughout the	Low/medium.	Dust nuisance.	Low due to the nature of the operations on site.

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall 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?	What measures will you take to reduce the risk? – Who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
			<p>working day to identify unacceptable dust levels.</p> <p>Operations will be intermittent on site, reducing the levels of potential dust during particularly dry periods.</p> <p>Storage and treatment of waste will be infrequent. Any waste stored or treated on site will be deposited into the proposed landform as soon as practicable in order to reduce storage times.</p> <p>Where appropriate, drop heights will be minimised to prevent emissions of dust.</p> <p>All roads and operational areas will be swept and / or dampened where necessary to reduce dust emissions.</p> <p>Where appropriate, vehicles delivering waste to the site will be sheeted to minimise emissions of dust.</p>			

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall 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?	What measures will you take to reduce the risk? – Who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
			<p>Visual monitoring will be carried out by all members of staff throughout their shift and any potential emissions of dust will be reported. If dust becomes an issue, or complaints are received, an investigation to establish the cause will be undertaken and action taken accordingly to mitigate the issue.</p> <p>The dominant wind direction is from the south west to the north east which is in the direction of open ground and surface water features, therefore no risk to ecological receptors or human health.</p> <p>Brett will be responsible for implementing risk management measures in accordance with Brett QHEST procedures as outlined in the Operating Techniques.</p>			

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall 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?	What measures will you take to reduce the risk? – Who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
To Water						
Runoff from site surfaces - Car park - Access roads - Haul roads Percolation of contaminated water.	Surface water and groundwater Receptors as identified in Table 3-2. See Drawing 003 and Appendix ERA1.	Overland runoff and surface water. Percolation through the ground.	There are a number of surface water features within 500m of the site's boundary, particularly to the east. Only non-contaminated waste will be accepted on site – in particular 19 12 12 and 17 09 04. The site-specific WAC and WAP included within Section 5 of this EP application will be implemented on site to ensure that only authorised EWC codes will be accepted. In the very unlikely event that non-conforming wastes are delivered to site, they will be refused before unloading or isolated and removed from site at the earliest opportunity. Brett will be responsible for implementing risk management measures in accordance with Brett QHEST procedures as outlined in the Operating Techniques.	Low/Negligible.	Contamination of surrounding land and water (surface water and groundwater).	Not significant.

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall 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?	What measures will you take to reduce the risk? – Who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
Pests						
Birds, vermin and pests.	Receptors as identified in Table 3-2. See Drawing 003 and Appendix ERA1.	Land and air.	No putrescible or biodegradable waste will be accepted on site. The site-specific WAC and WAP will ensure that only authorised wastes are accepted. In the unlikely event that birds, vermin or pests are identified on site, a specialist pest control contractor will be employed to undertake measures to remove the animals from the site. Brett will be responsible for implementing risk management measures in accordance with Brett QHEST procedures as outlined in the Operating Techniques.	Negligible.	Nuisance to human and commercial receptors.	Not significant.
Mud/Litter						
Litter from waste.	Receptors as identified in Table 3-2. See Drawing 003 and Appendix ERA1.	Air.	No litter-generating waste will be accepted on site.	Negligible.	Nuisance.	Not significant.

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall 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?	What measures will you take to reduce the risk? – Who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
			The site-specific WAC and WAP included within Section 5 of this EP application will be implemented on site to ensure that only authorised EWC codes will be accepted. Waste will be brought onto site in enclosed vehicles. Any vehicles that are not enclosed will be sheeted/covered to ensure no escape of waste materials during transit. Brett will be responsible for implementing risk management measures in accordance with Brett QHEST procedures as outlined in the Operating Techniques.			
Mud from vehicle movements.	Receptors as identified in Table 3-2. See Drawing 003 and Appendix ERA1.	Land.	The main access road from Willesborough Road is hard surfaced for a distance of approximately 50m. Secondary access roads leading from the main access road to the operational area will be constructed from hardcore.	Low.	Mud on road.	Not significant.

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall 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?	What measures will you take to reduce the risk? – Who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
			<p>Site surfacing will be maintained in good condition to minimise the transfer of mud from the site. The site will benefit from good housekeeping and all areas of the site will be cleaned regularly.</p> <p>Daily visual inspections of the site by site management will identify any problems associated with mud and debris which will be cleaned up as soon as possible. Where necessary road cleaning equipment will be deployed.</p> <p>In the event that mud, debris or waste arising from the site is deposited outside the site, the affected area will be cleaned, and traffic will be isolated from sources of mud and debris within the site.</p> <p>Brett will be responsible for implementing risk management measures in accordance with Brett QHEST procedures as outlined in the Operating Techniques.</p>			

Table 4-4
Accidents Risk Assessment and Management Plan

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall 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?	What measures will you take to reduce the risk? – Who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
Unauthorised waste.	Receptors as identified in Table 3-2. See Drawing 003 and Appendix ERA1.	Air and overland to sewers, surface and ground water.	The site-specific WAC and WAP included within Section 5 of this EP application will be implemented on site to ensure that only authorised EWC codes will be accepted. Only waste authorised by the permit will be accepted at the site. All wastes will be subject to inspection and checking against the declaration on the waste transfer note. In the event that unauthorised waste is delivered to the site, the waste will be segregated and stored in a designated quarantine area prior to export from the site. Brett will be responsible for implementing risk management measures in accordance with Brett QHEST procedures as outlined in the Operating Techniques.	Low.	Odour nuisance. Water contamination.	Not significant.
Fire.	Receptors as identified in Table 3-2.	Air, water runoff.	Only non-combustible wastes will be accepted on site.	Low.	Harm and nuisance.	Not significant.

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall 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?	What measures will you take to reduce the risk? – Who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
	See Drawing 003 and Appendix ERA1.		<p>No fuel or oil tanks will be stored within the proposed EP boundary. Smoking will not be permitted in the operational areas of the site. No wastes will be burned on site and any fire will be treated as an emergency.</p> <p>Actions to be taken in the event of a fire:</p> <ul style="list-style-type: none"> • Notify the Fire Rescue Service immediately and the EA as soon as practicable; • Isolate the burning area and attempt to extinguish the fire utilising the on-site fire extinguishers, if it is safe to do so; • Prevent, if possible, contaminated drainage from entering surface/groundwater; and • Evacuate the site if the fire is not containable. 		Water contamination (runoff).	

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall 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?	What measures will you take to reduce the risk? – Who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
			Brett will be responsible for implementing risk management measures in accordance with Brett QHEST procedures as outlined in the Operating Techniques.			
Spillage and Leakage.	Local land quality, surface water and groundwater.	Runoff and percolation through ground.	<p>No fuel or oil tanks will be stored within the proposed EP boundary.</p> <p>All vehicles and mobile plant will be subject to a programme of planned preventative maintenance in accordance with the manufacturer's recommendations to prevent oil/fuel leaks from vehicles.</p> <p>Minor spillages associated with vehicle leaks will be cleaned up immediately, using sand or proprietary absorbent and placed in suitable sealed containers.</p> <p>Brett will be responsible for implementing risk management measures in accordance with Brett QHEST procedures as outlined in the Operating Techniques.</p>	Low.	Contamination of land, groundwater and surface water.	Not significant.

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall 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?	What measures will you take to reduce the risk? – Who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
Security and Vandalism.	Receptors as identified in Table 3-2. See Drawing 003 and Appendix ERA1.	Land and air.	<p>The site will be adequately secured using gates and fencing to prevent unauthorised entrance.</p> <p>Security infrastructure will be inspected daily by the operations staff to identify deterioration and the need for any repairs.</p> <p>In the event that damage is identified, unauthorised access will be prevented, and temporary repairs will be made within 24 hours. Permanent repairs will be made as soon as practicable.</p> <p>All visitors to the site will be required to register in the visitor’s book and sign in/out. This minimises the risk of unauthorised visitors being present at the site.</p> <p>Operational procedures, including regular inspections, ensure continual monitoring of security provision at the site.</p>	Low.	<p>Theft, harm to human health.</p> <p>Contamination of land and surface water.</p>	Not significant.

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall 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?	What measures will you take to reduce the risk? – Who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
			Brett will be responsible for implementing risk management measures in accordance with Brett QHEST procedures as outlined in the Operating Techniques.			
Flooding.	Receptors as identified in Table 3-2. See Drawing 003 and Appendix ERA1.	Flood water overland.	The EA website confirms that the site lies within flood zone 1 and therefore has a low risk from flooding. In the extremely unlikely event of a flood, Brett will be responsible for implementing risk management measures.	Low.	Inundation of the site with flood water.	Not significant.

5.0 Conclusion

This environmental risk assessment has been undertaken as described by the regulatory guidance. The assessment is provided as part of the application for an EP application for the restoration of Conningbrook Ballast Hole.

This qualitative risk assessment has considered odour, noise, fugitive emissions, dust, releases to water, litter, and potential for accidents and incidents. The assessment concludes that with the implementation of the risk management measures described above, potential hazards from the proposed development are not likely to be significant and no further assessment is required.

EUROPEAN OFFICES

United Kingdom

AYLESBURY

T: +44 (0)1844 337380

BELFAST

T: +44 (0)28 9073 2493

BRADFORD-ON-AVON

T: +44 (0)1225 309400

BRISTOL

T: +44 (0)117 906 4280

CAMBRIDGE

T: + 44 (0)1223 813805

CARDIFF

T: +44 (0)29 2049 1010

CHELMSFORD

T: +44 (0)1245 392170

EDINBURGH

T: +44 (0)131 335 6830

EXETER

T: + 44 (0)1392 490152

GLASGOW

T: +44 (0)141 353 5037

GUILDFORD

T: +44 (0)1483 889800

LEEDS

T: +44 (0)113 258 0650

LONDON

T: +44 (0)203 805 6418

MAIDSTONE

T: +44 (0)1622 609242

MANCHESTER

T: +44 (0)161 872 7564

NEWCASTLE UPON TYNE

T: +44 (0)191 261 1966

NOTTINGHAM

T: +44 (0)115 964 7280

SHEFFIELD

T: +44 (0)114 245 5153

SHREWSBURY

T: +44 (0)1743 23 9250

STAFFORD

T: +44 (0)1785 241755

STIRLING

T: +44 (0)1786 239900

WORCESTER

T: +44 (0)1905 751310

Ireland

DUBLIN

T: + 353 (0)1 296 4667

France

GRENOBLE

T: +33 (0)6 23 37 14 14