



APPENDIX 1

HAILSHAM ROADWAYS

H1 ENVIRONMENTAL RISK ASSESSMENT

JUNE 2021

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Introduction

Hailsham Roadways is applying to vary its existing Standard Rules Permit SRN2008 No3 (ref. EPR/ZP/3992EW) to a Bespoke Installation Permit for its Woodside Depot site.

The principal purposes of this variation are to:

- Incorporate hazardous waste management activities (storage and processing)
- Extend the Permit Boundary area.

The variation to the Environmental Permit follows on from the grant of planning permission (ref. WD/843/CM) in December 2020 by East Sussex County Council for the '*Reconfiguration of site layout including: extension to yard; installation of vertical silo; installation of weighbridge; erection of storage building; operation of concrete crusher; new lighting scheme; new drainage infrastructure; full conversion of Brownings to office and HMO accommodation.*'

This report presents the required H1 – Environmental Risk Assessment for the proposed Installation operations. Many of the operational measures set out in this report to minimise environmental risk are already employed on site to manage the existing waste management activities undertaken with the Standard Rules Permit. However, these measures have been built on and strengthened during the course of obtaining planning permission WD/843/CM which has included the preparation and approval of a Noise Management Plan (with noise conditions limiting noise levels at identified receptors) and a Dust Management Plan; as well as approval of upgraded Site Drainage and improved controls of the existing site discharge point.

These Management Plans which are referred to in the H1 assessment are appended to the Operating Techniques report. In addition, the Operating Techniques report itself sets out the general procedures and processes to be employed on site that also underpin protection of the environment.

Environmental Risk Assessment

This report has been prepared following the Environment Agency's Risk Assessment guidance. It specifically relates to the potential risks associated with odour; noise and vibration; dust; water; and litter and pests. Accidents and incidents are covered separately in the Accident Management Plan.

This risk assessment is based on the following methodology:

- Identification of potential risks
- Identification of potential receptors to these risks
- An assessment of each risk type.

The H1 environmental risk assessment identifies the risks to the environment and human health from activities carried out at Woodside Depot and describes the pollutant linkage i.e. source – pathway – receptor for each risk type.

Potential Hazards

The potential hazards resulting from the activities carried out at Woodside Depot have been identified as:

- Odour:
 - Waste materials.
- Noise and vibration:
 - Unloading and loading of waste from HGVs and operation of related plant and machinery.
 - Vehicle movements on site.
- Dust emissions:
 - Dust generated by vehicle movements.
 - Dust generated from unloading and loading of waste from HGVs and operation of related plant and machinery.
 - Dust from the storage of waste.
- Water:
 - Waste materials.
- Birds and Pests:
 - Waste materials.
- Litter:
 - Waste materials.

Pathways

The pathways identified for each risk type are shown in Table 1:

Risk Type	Pathway
Odour	Air
Noise and vibration	Air
Dust	Air
Water	Surface water & Groundwater
Birds & Pests	Air / Overland
Litter	Air

Table 1: Potential Pathways

Receptors

Receptors within 1km of the application site have been identified and are shown in Table 2 below and in the Sensitive Receptor Plan (Appendix B). The main pathway for the identified sources is the air and as such, atmospheric conditions can affect dispersion rates and the potential risk. Therefore, the location of each receptor in relation to the site may influence the potential impact of the risk, as summarised in Table 2. The prevailing wind direction is from the south west.

Receptor	Distance from site (m)	Direction
Residential		
Brownings	40m	South West
Properties at Tudor Close	175m	North East
Properties at the Coach House	225m	South
Properties on Summer Hill Lane	280m	North East
Properties at Coppards	285m	East
Mulbrooks Cottages	855m	North East
Properties on Coldthorn Lane	760m	North East
Properties on Woodside Way	520m	North
Woodside Hall Nursing Home	352m	North
Ersham House Nursing Home	1000m	North East
Woodland		
Ancient and semi-natural woodland	195m and 360m	South
Ancient replanted woodland	680m	South West
Surrounding wooded areas	500m – 1000m radius of the site	All directions
Sensitive Land Uses		
Natewood Farm	110m	West
Rosebank Farm	485m	South
Stockhall Farm	385m	North East
Little Mulbrooks Farm	670m	North East
Industrial/Commercial		
Natewood Solar Farm	253m	West
Woodside Poultry Farm	170m	South West
Historic Doors	125m	West
A.T.P Paintworks	140m	West
PJ Skips	430m	South
Polegate Equestrian Centre	760m	South
K2 Indian Takeaway	750m	South
Nightingale Boarding Kennels	540m	South
Rhino Removals	510m	South
Amazon Wood Fishery	240m	South East
World of Water Aquatic Centres Hailsham	845m	East
Peel House Farm Camping & Caravan Park	815m	East
Cuckoo's Rest Camping and Caravanning Park	900m	South East
The Cottage Takeaway	950m	North
Public Rights of Way		
Public Footpath	30m	East
Public Footpath	25m	North
Public Footpath	30m	South
Bridleway – Robin Post Lane	775m	West
Cuckoo Trail Cycleway	645m	East
Infrastructure/utilities		
A22 (Polegate Road)	20m	West
Summer Hill Lane (leading to Coldthorn Lane)	10m	Eastern to Southern boundary
Bus stop on A22	200m and 405m	North and South

Eastbourne Calor Gas Centre	710m	South
Groundwater		
The site is not within a source protection zone or drinking water safeguard zone		

Table 2: Location of potential receptors in relation to waste operation

Risk Assessment Summary

The H1 Environmental Risk Assessment looks at each specific hazard identified and assesses the likelihood of those hazards impacting on nearby receptors. This is achieved by fulfilling the following objectives:

- Identify the location and nature of each hazard.
- Identify the specific receptors potentially at risk and assess the sensitivity of each receptor.
- Provide an assessment of the risk posed to each sensitive receptor.
- Identify management and monitoring techniques to remove or mitigate the risk.
- Provide recommendations for more detailed assessments where necessary.

The H1 Environmental Risk Assessment indicates that if the management measures outlined in the assessment (and detailed in the Operating Techniques report and the noise and dust management plans) are employed on site to protect nearby sensitive receptors, the proposed activities as part of the permit variation will have no significant impacts in terms of odour, noise, water, dust and other fugitive emissions.

Appendix A – Environmental H1 Risk Assessment

Table A1: Odour Risk Assessment and Management Plan

What is the risk?			Managing the risk	Assessing the risk		
Hazard	Receptor	Pathway	Risk Management	Probability of Exposure	Consequence	What is the overall risk?
Odorous Waste Types	Local population in residential dwellings, commercial and industrial properties in Table 2 Site Staff	Air transport then inhalation	<p>Permitted waste types stored onsite are not putrescible and so have a low odour potential.</p> <p>There will be strict waste acceptance procedures in place to minimise the risk of non-compliant wastes being accepted. Details of the waste acceptance procedures are provided in the Operating Techniques report.</p> <p>All site operatives will be vigilant regarding identifying non-compliant wastes and any non-conformances or odour issues will be reported to the Site Manager.</p>	Very unlikely as the waste types accepted on site do not give off odour unless heated and the material will be stored at ambient temperature.	Odour annoyance and complaints.	Low

Table A2: Noise and Vibration Risk Assessment and Management Plan

What is the risk?			Managing the risk	Assessing the risk		
Hazard	Receptor	Pathway	Risk Management	Probability of Exposure	Consequence	What is the overall risk?
Noise and vibrations from unloading and loading of waste / recycled product and operation of related plant and machinery.	Local population in residential dwellings, commercial and industrial properties listed in Table 2	Air and vibration	<p>The noise generating activities of screening and batching would only be undertaken between the hours of 07:00 to 18:00 Monday to Friday and 07:30 to 12:30 on Saturday (and crushing would only take place between 08:00 and 18:00 Monday to Friday and 08:00 to 12:30 on Saturday).</p> <p>The site operates on a 24-hour basis to service highways maintenance contracts and planning permission WD/843/CM states:</p> <p><i>The operational noise rating level determined at the noise sensitive receptors identified in the 24 Acoustics report, dated 27 August 2020 (ref. R7412-2 Rev 2), shall not exceed +5 dBA above the background noise level at any time during the day (i.e. between the hours of 07.00 - 18.00), as determined in accordance with BS 4142:2014 +A1:2019.</i></p> <p>In addition (for the allowance of batching operations in the night-time period) it also states that:</p> <p><i>The operational noise rating level determined at the noise sensitive receptors identified in the 24 Acoustics report, dated 27 August 2020 (ref. R7412-2 Rev 2), shall not exceed the background level at any time during the night (i.e. between the hours of 18.00 - 07.00), as measured in accordance with BS 4142:2014 +A1: 2019 except for up to 36 times per calendar year when the operational noise rating level determined at the identified noise sensitive receptors shall not exceed +5 dBA above the background noise level at any time during the night (i.e. between the hours of 18:00 – 07:00), as measured in accordance with BS 4142:2014 +A1: 2019.</i></p>	Unlikely given strict noise limits at nearest sensitive receptors.	Noise annoyance and complaints.	Low

			<p>The site would also be operated in accordance with a Noise Management Plan (as presented in Appendix 4). Measures set out in this report include:</p> <p>All plant and machinery will have effective silencers where practicable and be maintained in accordance with the manufacturer's requirements to minimise the risk of mechanical failure which could result in increased noise emissions.</p> <p>The loading/unloading of wastes will be undertaken in a controlled manner to keep noise/vibration to a minimum. Vehicles will be directed by site operatives to minimise the drop height when depositing loads at the site.</p> <p>All noise and vibration generating activity will be monitored closely and site operatives will be vigilant and report any excessive noise or vibration issues to the Site Manager.</p> <p>Boundary bunds would be maintained and together with stockpiling adjacent to operational crushing areas to act as a physical barrier to noise. Roadways will also install and maintain acoustic screening (with a minimum surface density of 12 kg/m² and height of 1.8 m) around the HBM batching plant.</p> <p>In addition, the Noise Management Plan provides details of the monitoring and investigation procedures that would be followed in the event a noise complaint is received.</p>			
Vehicle movements on site	Local population in residential dwellings, commercial and industrial properties listed in Table 2	Air	<p>The delivery and collection of waste or recycled products would take place in a controlled manner to keep noise to a minimum.</p> <p>The Noise Management Plan sets out the following measures in respect of vehicle movements:</p> <ul style="list-style-type: none"> • HGVs will be pre-loaded at the end of the day ready for a morning departure; • HGVs will be parked to avoid having to reverse when exiting in the morning; 	Unlikely given management measures and strict noise limits at nearest sensitive receptors.	Intermittent noise and vibration disturbance.	Low

		<ul style="list-style-type: none"> • HGVs will be started up and depart sequentially in the morning; • All vehicles under Roadway's control will be fitted with broadband (white noise) reversing alarms; • Vehicle radios to be switched off before arriving on site; • All unloading and re-loading of any vehicle shall be undertaken with care in a manner which makes the least amount of noise. Drivers will seek to control the closure of vehicle tailgates to avoid banging; • Vehicle horns only to be sounded if required in safety-critical situations; • Engines to be shutdown when vehicles are stationary; • Drivers should seek to: <ul style="list-style-type: none"> ◦ Engage gears with a minimum of noise; ◦ Keep engine revs to a minimum; ◦ Apply brakes gently; ◦ Close doors with minimum noise. <p>The adherence to these measures would be monitored by the Site Manager and any related complaints investigated in accordance with the Noise Management Plan procedures.</p>		
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Table A3: Fugitive emissions risk assessment and management plan

What is the risk?			Managing the risk		Assessing the risk		
Hazard	Receptor	Pathway	Risk Management		Probability of Exposure	Consequence	What is the overall risk?
To Air							
Dust emissions from vehicle movements	Local population in residential dwellings, commercial and industrial properties and ancient woodlands listed in Table 2 Site Staff Users of roads listed in Table 2	Air transport then deposition	The site would be operated in accordance with a Dust Management Plan (as presented in Appendix 5). This management plan and its related impact assessment were approved by the Environmental Health Officer in the determination of planning permission WD/843/CM. The measures to be employed on site to prevent and control dust associated with the movement of HGVs and other vehicles around the site include: Wastes being delivered to the site will be covered or sheeted to prevent the generation of dust while the waste is in transit. Vehicle speeds will be limited onsite to 5mph to prevent re-suspension and movement of dust. The site has been designed so that vehicles do not come into contact with mud with the yard surfacing comprising tarmac, concrete and hardstanding areas – all these surfaces would be kept clean to prevent the accumulation of dust or mud that could be tracked by vehicle's wheels. The cleaning of these surfaces would utilise a water bowser to damp down and/or a road sweeper depending on conditions. All vehicles would be inspected before departure and the site has a jet wash facility in the event a vehicle needs cleaning before leaving the site.	Unlikely due to dust prevention and management measures in place.	Local nuisance i.e. dust on cars, clothing, and vegetation. Nutrient enrichment.	Low	

			<p>The established boundary vegetation including vegetated bunds would act as a screen to prevent any airborne dust escaping from the site boundary.</p> <p>The Site Manager would undertake a daily visual assessment of dust including looking at all site surfaces to make sure they are well maintained and free from accumulated dust. Site operatives are trained to be vigilant and report any problems to the Site Manager.</p>			
Dust emissions generated from unloading and loading of waste / recycled product and operation of related plant and machinery.	<p>Local population in residential dwellings, commercial and industrial properties and ancient woodlands listed in Table 2</p> <p>Site staff</p> <p>Users of roads listed in Table 2</p>	Air transport then deposition	<p>The site would be operated in accordance with a Dust Management Plan (as presented in Appendix 5). This management plan and its related impact assessment were approved by the Environmental Health Officer in the determination of planning permission WD/843/CM.</p> <p>The measures to be employed on site to prevent and control dust associated with the movement and processing of waste include:</p> <p>The unloading/loading of wastes will be undertaken in a controlled manner to keep dust emissions to a minimum.</p> <p>Drop heights will be minimised to reduce the generation of dust whilst the waste is being handled.</p> <p>Dust suppression systems will be employed including the use of sprinklers in high activity waste processing areas, and the use of mist cannons when undertaking crushing operations in very dry weather.</p> <p>All plant and machinery and the surfaces around where they operate would be kept clean and damped down in dry conditions. All plant and machinery would be operated, serviced and maintained in accordance with manufacturers specifications.</p> <p>Screening and crushing operations would be suspended in very windy and/or very dry conditions. Woodside Depot has an onsite meteorological station to allow real time decisions to be made by the Site Manager with</p>	<p>Unlikely due to dust prevention and management measures in place.</p>	<p>Local nuisance i.e. dust on cars, clothing, and vegetation.</p> <p>Nutrient enrichment.</p>	Low

			<p>reference to wind speed and direction and precipitation rate.</p> <p>Site operatives employed in the handling and processing of waste would wear appropriate PPE.</p> <p>The established boundary vegetation including vegetated bunds would act as a screen to prevent any airborne dust escaping from the site boundary.</p> <p>The Site Manager would undertake a daily visual assessment of unloading/loading and processing operations to ensure the management measures are being employed and are working effectively. Site operatives are also trained to be vigilant and report any problems to the Site Manager.</p>			
Dust emissions from the storage of waste	<p>Local population in residential dwellings, commercial and industrial properties and ancient woodlands listed in Table 2</p> <p>Users of roads listed in Table 2</p> <p>Site Staff</p>	Air transport than deposition	<p>The site would be operated in accordance with a Dust Management Plan (as presented in Appendix 5). This management plan and its related impact assessment were approved by the Environmental Health Officer in the determination of planning permission WD/843/CM.</p> <p>The measures to be employed on site to prevent and control dust associated with the storage of waste include:</p> <p>Limiting stockpile heights to a maximum of 6m.</p> <p>Profiling stockpiles to have a rounded rather than peaked top.</p> <p>Keeping stockpiles and storage bays damped down in</p>	Unlikely due to dust prevention and management measures in place.	<p>Local nuisance i.e. dust on cars, clothing, and vegetation.</p> <p>Nutrient enrichment.</p>	Low

			<p>dry conditions.</p> <p>The established boundary vegetation including vegetated bunds would act as a screen to prevent any airborne dust escaping from the site boundary.</p> <p>The Site Manager would undertake a daily visual assessment of the storage areas to ensure the management measures are being employed and are working effectively. Site operatives are also trained to be vigilant and report any problems to the Site Manager.</p>			
Generator used to power recycling plant	Local population in residential dwellings, commercial and industrial properties and ancient woodlands listed in Table 2	Air	<p>A small (116kWe), efficient (Euro IIIA) machine has been chosen. It will be operated for less than 600 hours per year. Mains green tariff electricity will be used wherever possible to minimise generator use.</p> <p>The nearest downwind receptors are at least 280m away.</p> <p>Use eco mode and standby / off at all possible times.</p>	Very unlikely	CO, NOx, PM	Low
To Water						
Surface water run-off.	Surface water and groundwater.	Water	<p>Permitted waste types do not include wastes in sludge or liquid form. The site would employ strict waste acceptance procedures (as detailed in the Operating Techniques report) to ensure that unsuitable wastes are not accepted on site and that allowable wastes are correctly classified and stored and processed in the correct area on site.</p> <p>All hazardous wastes and non-hazardous (non-specified) wastes would be stored and processed on an impermeable concrete pad with incidental surface water draining to a sealed tank (via a treatment process) with the collected water being tankered off-site. This would prevent any contaminated water either leaching into the groundwater or reaching the surface water discharge.</p>	Very unlikely given the sealed impermeable drainage system for hazardous wastes and non-hazardous (non-specified) wastes and the capture and treatment measures installed for the main yard drainage system for non-hazardous (specified)	Contamination of groundwater surface water bodies	Low

			<p>All surface water run-off from non-hazardous (specified) wastes would be captured by the onsite positive drainage system which comprises catch-pits and drainage channels / gullies connected to interceptors. The surface water is then held in a series of crates, swales and a pond before discharging from site via a complex flow control mechanism including filtration out of all solids >50 microns.</p> <p>The drainage system is fitted with pen stock valves to retain surface run-off water following a leak, spill or fire event.</p> <p>The drainage system infrastructure is subject to an inspection and maintenance programme including regular visual inspections by the Site Manager.</p> <p>The hazardous waste would be covered when stored to further reduce the potential for any contamination / hazardous substances to be mobilised.</p>	wastes..		
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Pests/Scavenging Birds						
Birds and pests	Local population in residential dwellings, commercial and industrial properties and ancient woodlands listed in Table 2	Air transport and over ground	<p>Permitted wastes stored onsite are not putrescible and will therefore not be attractive to pests or scavenging birds.</p> <p>All headwalls to be provided with grates and outfalls of pipes with flaps to prohibit entry of small animals.</p> <p>There are strict waste acceptance procedures in place at the site to prevent the acceptance of non-conforming waste types. Details of the waste acceptance</p>	Very unlikely due to the nature of the waste material	Nuisance to local receptors.	Low

		<p>procedures are provided in the Operating Techniques report.</p> <p>As part of the daily site inspection the Site Manager will look for any clear evidence of nuisance birds or pests on site. All site operatives are trained to be vigilant for birds and pests and report any problems to the Site Manager.</p>			
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Litter						
Litter	All receptors listed in Table 2.	Air transport then deposition	<p>The nature and types of waste accepted by the site do not typically contain or generate litter. There are strict waste acceptance procedures in place at the site to prevent the acceptance of non-conforming waste types. Details of the waste acceptance procedures are provided in the Operating Techniques report.</p> <p>All site operatives are trained to be vigilant and immediately clear / report any litter.</p> <p>All HGVs are sheeted on arrival and departure to prevent the escape of any materials on local roads.</p> <p>Working areas are also regularly cleared and cleaned to minimise the generation of litter.</p> <p>The site is also fenced on all sites with established vegetation and a vegetated bund – these would act as a barrier to prevent the escape of any windblown litter.</p>	Unlikely due to the nature of the waste material accepted and processed on site as well as the management measures in place.	Local nuisance	Low

Appendix B – Sensitive Receptor Plan



ID	Receptor
Residential	
1	Properties at Tudor Close
2	Properties at the Coach House
3	Properties on SummerHill Lane
4	Properties at Coppards
5	Mulbrooks Cottages
6	Properties on Coldthorn Lane
7	Properties on Woodside Way
8	Woodside Hall Nursing Home
9	Ersham House Nursing Home
10	Brownings
Woodland	
11	Ancient and semi-natural woodland
12	Ancient, replanted woodland
13	Surrounding wooded areas
Sensitive Land Uses	
14	Natewood Farm
15	Rosebank Farm
16	Stockhall Farm
17	Little Mulbrooks Farm
Industrial/Commercial	
18	Natewood Solar Farm
19	Woodside Poultry Farm
20	Historic Doors
21	A.T.P Paintworks
22	PJ Skips
23	Polegate Equestrian Centre
24	K2 Indian Takeaway
25	Nightingale Boarding Kennels
26	Rhino Removals
27	Amazon Wood Fishery
28	World of Water Aquatic Centres
29	Peel House Farm Camping/Caravan Park
30	Cuckoo's Rest Camping/Caravan Park
31	The Cottage Takeaway
Public Rights of Way	
32	Public Footpath
33	Public Footpath
34	Public Footpath
35	Bridleway – Robin Post Lane
36	Cuckoo Trail Cycleway
Infrastructure/utilities	
37	A22 (Polegate Road)
38	Summer Hill Lane
39	Bus stop on A22
40	Eastbourne Calor Gas Centre