



CRESTWOOD ENVIRONMENTAL LTD

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Ferns Aggregates Ltd.

H1 Accidents and Amenities Risk Assessment

**Bespoke Environmental Permit Application for the Deposit of Inert Waste
for Recovery**

Wrotham Quarry, Trottiscliffe Road, Addington, Kent, ME19 5DL

Report Reference: CE-WQ-1643-RP04-HI-Final

Report Date: 18 November 2021

Produced by Crestwood Environmental Ltd.

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ENVIRONMENT

LANDSCAPE

NOISE

LIGHTING

ECOLOGY

HERITAGE

WATER

TREES

MINERALS / WASTE

AIR QUALITY

LAND QUALITY

VISUALISATION



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HAZARD	Receptor	Pathway	Risk Management	Probability of Exposure	Consequence	What is the Overall Risk
Odour						
Odour from waste delivery, off-loading, and deposit for waste recovery	<p>The neighbouring properties of Leney's Cottages c.42m to the north, farms and associated buildings at c.150m west and 295m to the north-west, residential properties along Ford Lane at c.335m north-west and Westfields Farm c.450m to the south of the Site.</p> <p>Any agricultural workers on the neighbouring farmland to the north and quarry workers to the east and south of the Site.</p> <p>Visitors to the SSSI Trottscliffe Meadow at 13m to the west of the Site and the Kent Downs Area of Outstanding Beauty (AONB) on which the Site and immediate vicinity is part of.</p>	Air	<p>Waste types accepted at the Site are strictly inert that are inherently non-odorous and are subject to the waste acceptance criteria (WAC) requirements of the Landfill Directive.</p> <p>Although the waste types are not odorous, in the unlikely event that any malodorous loads are delivered to the Site, they will be directed to a suitably authorised facility.</p> <p>Any complaints received at the Site about odour will be monitored and logged in accordance with the EMS. Mitigation measures will be implemented, as appropriate, to ensure a high level of control.</p>	Unlikely	Odour annoyance to anyone living or working close to the Site.	Low
Noise and Vibration						



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<p>Engine noise during waste deposit, loading and unloading including reversing beepers etc.</p> <p>Vehicle movements to and from the Site delivering waste.</p> <p>Vibration from deposit of waste.</p>	<p>As above and the nearby villages of Addington, Trottscliffe and Ryarch are c.700m to the south, 1.40km to the north-west and c.1.70km to the east of the Sites boundary, respectively.</p> <p>Road networks in the vicinity including Addington Lane to the immediate North of the Site, Ford Lane to the west, Trottscliffe Road and Woodgate Road to the east and The M26 and M20 to the south.</p>	<p>Noise via the atmosphere and vibration through the ground.</p>	<p>Noise from mobile plant and machinery will be attenuated by the existing quarry faces during the major part of the restoration works.</p> <p>To minimise noise emissions, all vehicles, plant and machinery operated at the Site will be maintained in accordance with the manufacturer's specification and fitted with effective silencers. Any breakdown or malfunction of silencing equipment will be treated as an emergency and dealt with immediately. Where a repair cannot be affected immediately the equipment will be taken out of service until the repair is made.</p> <p>Routine maintenance of plant and equipment will be carried out in accordance with the manufacturer's recommendations and the Company's EMS to minimise noise emissions.</p> <p>The Site will only be operated during the hours specified in the planning permission i.e. 0700 – 1800 hours Monday to Friday and 0700 – 1300 hours on Sunday with no operations carried out on Sundays or Bank Holidays. No un-social or night-time working will be carried out.</p> <p>Any complaints received at the Site about noise will be monitored and logged in accordance with the EMS. Mitigation measures will be</p>	<p>Unlikely</p>	<p>Noise nuisance to anyone living or working close to the Site.</p>	<p>Not significant as long as management procedures adhered to.</p>



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			implemented, as appropriate, to ensure a high level of control.			
Fugitive Emissions – Release to Air						
Dust from vehicles entering and leaving the Site, offloading of waste material and plant and machinery working on the Site including waste deposit (includes mud and debris being liberated out with the Site boundary).	<p>Receptors identified above and the forty-nine Designated Ancient Woodlands in the range of 241m to 1979m from the boundary of the Site.</p> <p>Additionally, the areas of Designated Ancient Woodland in proximity to the Site.</p> <p>The eight water features and water networks including streams and tributaries at 2m west, 101m and 104m east, 103m north-east, 123m north and 248m to the south of the Site.</p> <p>The reservoir at 106m to the west of the Site.</p>	Transportation of mud and debris from the Site on the under carriage and wheels of vehicles exiting the Site or escape of wastes from the vehicle body. Windblown dust.	<p>To minimise the generation and subsequent dispersal of dust, mud and debris around the Site, a number of control measures will be implemented including the following: All vehicles transferring inert materials to the Site and all on-Site mobile plant are limited to speed restrictions. Failure to comply with Site instructions regarding the above will result in the driver being warned and they may risk exclusion from the Site until further notice.</p> <p>A water bowser will be made available for dust suppression on the Site access road and operational areas, during dry and dusty conditions, as required. The importance of dust suppression during periods of dry and dusty weather is recognised, particularly due to the proximity of the neighbouring properties farms and businesses.</p> <p>As part of its daily inspection regime, the Site will be visually inspected for the presence of fugitive emissions and mud and debris.</p> <p>Any complaints received at the Site about dust, mud or debris will be monitored and logged in accordance with the EMS. Mitigation measures will be implemented, as appropriate, to ensure a high level of control.</p>	Fugitive dusts, mud and debris emissions – probable unless adequate control and mitigation measures are in place.	Fugitive dusts. Dust on window ledges, cars, etc. Mud and debris presence on public highway could cause skidding and loss of control. Dust settlement on woodland and habitats could cause harm to flora and fauna.	Fugitive dusts - not significant when managed by necessary mitigating measures and documented management systems.
Fugitive Emissions – to Water						



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Contamination of the surrounding surface waters	<p>The eight water features and water networks including streams and tributaries at 2m west, 101m and 104m east, 103m north-east, 123m north and 248m to the south of the Site.</p> <p>The reservoir at 106m to the west of the Site.</p>	Surface water run-off and discharge to watercourse.	No surface runoff or water discharges are diverted from the Site to any of the watercourses in the vicinity.	Unlikely due to the on-site management measures.	Contamination to surface water bodies.	Not considered significant.
Pests						
Due to the nature of the waste materials accepted at the Site, i.e. strictly inert waste, the risk from pests as a result of the operation of the proposed Site is considered insignificant and therefore this section has not been addressed further.						
Litter						
The risk of litter arising from the Site and polluting the surrounding environment is unlikely due to the nature of the proposed activities and the permitted waste types being strictly inert, however Site inspections for the presence of material will be carried out on a regular basis and in the unlikely event of litter being found, litter pickers will be employed on Site to remove the material. The presence of litter within the deposited waste will be screened as part of the acceptance criteria.						
Mud						
See section relating to 'emissions' above.						
Leakage of potentially polluting liquids						



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Leak from any waste oil / diesel storage tank escaping the confinement bund.	<p>The eight water features and water networks including streams and tributaries at 2m west, 101m and 104m east, 103m north-east, 123m north and 248m to the south of the Site.</p> <p>The reservoir at 106m to the west and of the Site, respectively.</p> <p>In terms of groundwater, the Folkstone Beds designated as a Principal bedrock Aquifer in the region; the Sandgate Beds designated as a Secondary A Bedrock Aquifer and the Hythe Beds designated as a Principal Bedrock Aquifer.</p>	Ground contamination to soils and underlying groundwater	<p>Diesel, oil and other potentially polluting liquids will not be stored on Site.</p> <p>There are no discharges or surface runoff from the Site that drains to surface waters and all workings take place entirely above the underlying aquifer.</p> <p>Emergency spillage procedures at the Site form part of the EMS.</p>	Unlikely due to the on-site management measures.	Contamination of local watercourse.	Not considered significant.
Fires						
Fire within the on-site plant and equipment and / or delivery vehicles	As above and the nearby villages of Addington, Trottscliffe and Ryarch are c.700m to the south, 1.40km to the north-west and c.1.70km to the east of the Sites boundary,	Air transport of smoke. Spillages and contaminated firewater by direct run-off from site and via surface water drains	<p>Inert materials are non-combustible.</p> <p>On Site plant and equipment will be maintained on a regular basis to ensure it is working effectively to minimise the risk of fire.</p> <p>In the event of a fire within the on- Site plant and equipment, the Site staff will</p>	Unlikely	Smoke, local nuisance, risk of fire spreading	Not significant as long as management procedures adhered to.



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	respectively. Road networks in the vicinity including Addington Lane to the immediate North of the Site, Ford Lane to the west, Trotitscliffe Road and Woodgate Road to the east and The M26 and M20 to the south.	and ditches.	ensure the machine is switched off and if possible, without risk to personal safety, fight the fire using the firefighting equipment available. In the event the fire is too big or out of control the fire brigade will be informed and the local area evacuated. Site staff are trained in the event of a fire and made aware of the location of all firefighting equipment and procedures.			
Other Accidents						
Waste material loss from delivery vehicle	Receptors identified above and the eight water features and water networks including streams and tributaries at 2m west, 101m and 104m east, 103m north-east, 123m north and 248m to the south of the Site. The reservoir at 106m the west of the Site. In terms of groundwater, the Folkstone Beds designated as a Principal bedrock Aquifer in the region; the Sandgate Beds designated as a Secondary A Bedrock Aquifer and the Hythe	Air, land	Waste delivery vehicles should be netted, sheeted or enclosed, as appropriate, to prevent any inadvertent waste escape. Permitted waste types are strictly inert and do not contain materials that are likely to become windborne such as litter and light plastics.	Unlikely	Unightly and potential nuisance	Waste material loss from delivery vehicle



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	Beds designated as a Principal Bedrock Aquifer.					
Inadequate waste acceptance procedures	Receptors identified above	Air, land	<p>All waste will be subject to strict waste acceptance procedures and WAC testing as required to ensure that only compliant waste types are accepted.</p> <p>Third parties delivering waste to the Site will be required to provide the Operator, in advance, with all necessary information / documentation to satisfy the requirements of the Waste (England and Wales) Regulations 2011 and the Duty of Care. Information required includes the type and quantity of waste, the form the waste takes (e.g. solid) and any special handling requirements needed. Only wastes that are authorised for deposit at the Site are accepted.</p> <p>Waste loads will be inspected on deposit to ensure that only authorised materials are used in the deposit of waste for recovery.</p>	Low	Potentially harmful if incompatible or unacceptance wastes are received	Low
Breach in site security	Site personnel, plant and intruders	Land	The Site is bounded in part by hedgerows and CCTV cameras are installed near the Site entrance which detect vehicles and people entering the premises. In the event of unauthorised public access to the Site, security measures will be reviewed and increased in the event of unlawful entry.	Quite low	Some harm	Not significant.



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Gas						
The emission of methane, carbon dioxide and oxygen from the decomposition of wastes	<p>The neighbouring properties of Leney's Cottages c.42m to the north, farms and associated buildings at c.150m west and 295m to the north-west, residential properties along Ford Lane at c.335m north-west and Westfields Farm c.450m to the south of the Site.</p> <p>Any agricultural workers on the neighbouring farmland to the north and quarry workers to the east and south of the Site.</p> <p>Visitors to the SSSI Trotitscliffe Meadow at 13m to the west of the Site and the Kent Downs Area of Outstanding Beauty (AONB) on which the Site and immediate vicinity is part of.</p>	Air	<p>If required by the Environment Agency, gas monitoring will be carried out using the existing 4 boreholes installed at the Site once waste levels have reached the restoration contours.</p> <p>Due to the presence of landfills in the vicinity that have resulted in gas migration, should post infill gas monitoring be a requirement, pre-development gas monitoring will be conducted so as to ensure gas detection is not incorrectly attributed to the buttressing work.</p> <p>The boreholes will be monitored monthly for methane, carbon dioxide, oxygen and atmospheric pressure</p>	Low	Inhalation by nearby residents, workers and visitors to the area.	<p>It is unlikely that there will be elevated concentrations of gas due to the inert nature of the wastes deposited.</p> <p>Additionally, the Site is remote from receptors.</p>
	The nearby villages of Addington, Trottscliffe and Ryarch are c.700m to the south, 1.40km to the north-west and					



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	c.1.70km to the east of the Sites boundary, respectively. Road networks in the vicinity including Addington Lane to the immediate North of the Site, Ford Lane to the west, Trottiscliffe Road and Woodgate Road to the east and The M26 and M20 to the south.					

