

Environmental Risk Assessment for a waste recovery operation at Airfield Quarry						
Harmful activities, and who or what is at risk of harm?			Managing risk	Risk Assessment		
Hazard / Source of harm	Receptor – who or what is at risk?	Pathway – how will the hazard reach the receptor?	Risk Management – what measures will be put in place to reduce risk?	Probability of Exposure – how likely is exposure to the hazard?	Consequence – what is the potential harm that could be caused?	Overall risk – what is the remaining risk? The balance of probability and consequence
Increase in release of particulate matter (dusts) and micro-organisms (bioaerosols) due to increase in annual throughput.	Local population	Air transport then inhalation and / or deposition.	Dust will be managed in the following principle ways: Provision of two wheel washes Control of transportation: Use of sheeted / covered waste delivery vehicles where required. Speed limit enforced on access road. Modification and / or cessation of operations in extreme conditions.	Full assessment of the risk of dust impact has been carried out in consultation with the LPA and other relevant statutory bodies and agreed to be acceptable through the EIA process considering all sensitive receptors Normal industry dust management techniques are in place. Additionally, if the distance for noise receptors is judged by EA to not require a Noise Management Plan, the same logic can be applied to dust.	Harm to human health - respiratory irritation and illness. Nuisance - dust on cars, clothing etc.	Not significant due to the nature of the waste types and the management techniques employed..
Increase in litter	Local population, livestock, and wildlife	Air transport then deposition.	The following mitigation measures will be employed on site: Visual assessment maintained throughout the working day. Any windblown material will be cleared immediately.	Negligible - due waste types being accepted and measures in place.	Nuisance, loss of amenity and harm to animal health	Not significant due to nature of waste received and management techniques employed.
Increase in waste, litter, and mud on local roads	Local human population	Vehicles entering and leaving site.	The operator will ensure the entrance to the site remains free of mud and other debris. Drivers will be instructed to ensure that before leaving the Site or the internal haul road the wheels and chassis of their vehicle are clean and, if necessary, to remove all mud or detritus from the wheels and chassis before joining any public highway. Two wheel washes on site.	Low due to mitigation measures in place.	Nuisance, loss of amenity, road traffic accidents.	Not significant due to management techniques employed.

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			<p>The waste types are typically not liable to spillage and should be contained within the vehicles transporting waste.</p> <p>Daily inspections of the public highway will take place. If a specific problem is identified at any time with mud or debris on the public highway action will be taken to remove it.</p> <p>Further details of management and mitigation of these emissions is included in the Environmental Management System.</p>			
Increase in odour	Local human population	Air transport then inhalation.	<p>Only inert materials will be imported to site, with no putrescible wastes permitted on site. Therefore, odour generation is unlikely.</p> <p>Adherence to planning conditions and strict waste acceptance procedures will minimise the risk of non-compliant wastes being accepted.</p> <p>All site operatives will be vigilant in identifying non-compliant wastes.</p>	Unlikely due to permitted waste types.	Nuisance, loss of amenity	Not significant due to management techniques employed.
Increase in noise and vibration	Local human population	Noise through the air and vibration through the ground.	<p>A number of screening bunds will be placed along the perimeter of the working phases using soils that will be stripped from the site. This will minimise the potential for noise to impact receptors that are situated beyond the site boundary.</p> <p>Site activities will only take place during permitted hours.</p> <p>All plant and machinery will be switched off when not in use.</p>	<p>Full assessment of the risk of noise impact has been carried out in consultation with the LPA and other relevant statutory bodies and agreed to be acceptable through the EIA process considering all sensitive receptors.</p> <p>Additionally no noise assessment under BS4142 confirmed by EA as</p>	Nuisance, loss of amenity, loss of sleep.	Not significant

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			<p>All mobile plant will be fitted with non-beep reversing alarms.</p> <p>Preventive maintenance will be carried out on all plant and equipment to ensure minimal noise and vibration is generated by its operation.</p> <p>All mobile plant will be subject to regular maintenance and inspections in accordance with manufacturer's specifications to ensure minimal noise and vibration is generated by its operation.</p> <p>The Site Manager will be responsible for ensuring the above measures are implemented.</p> <p>All noise generating activities will be monitored closely and site operatives will be vigilant and report any excessive noise or vibration issues to the Site Manager.</p>	necessary for this site because of the distance to receptors. Intermittent during operating hours		
Increase in scavenging animals and scavenging birds	Local human population	Air transport and over land	<p>Adherence to planning conditions and strict waste acceptance procedures will minimise the risk of non-compliant wastes being accepted.</p> <p>The permitted waste types are unlikely to attract significant numbers of scavengers.</p> <p>Regular site inspections will be carried out.</p> <p>Should any evidence of scavenging animals or birds be found, steps will be taken immediately to eradicate them. A bird hazard control program is in place for aircraft safety,.</p>	Unlikely due to mitigation measures in place.	Harm to human health - from waste carried off site and faeces. Nuisance and loss of amenity.	Not significant due to waste types and management techniques employed.

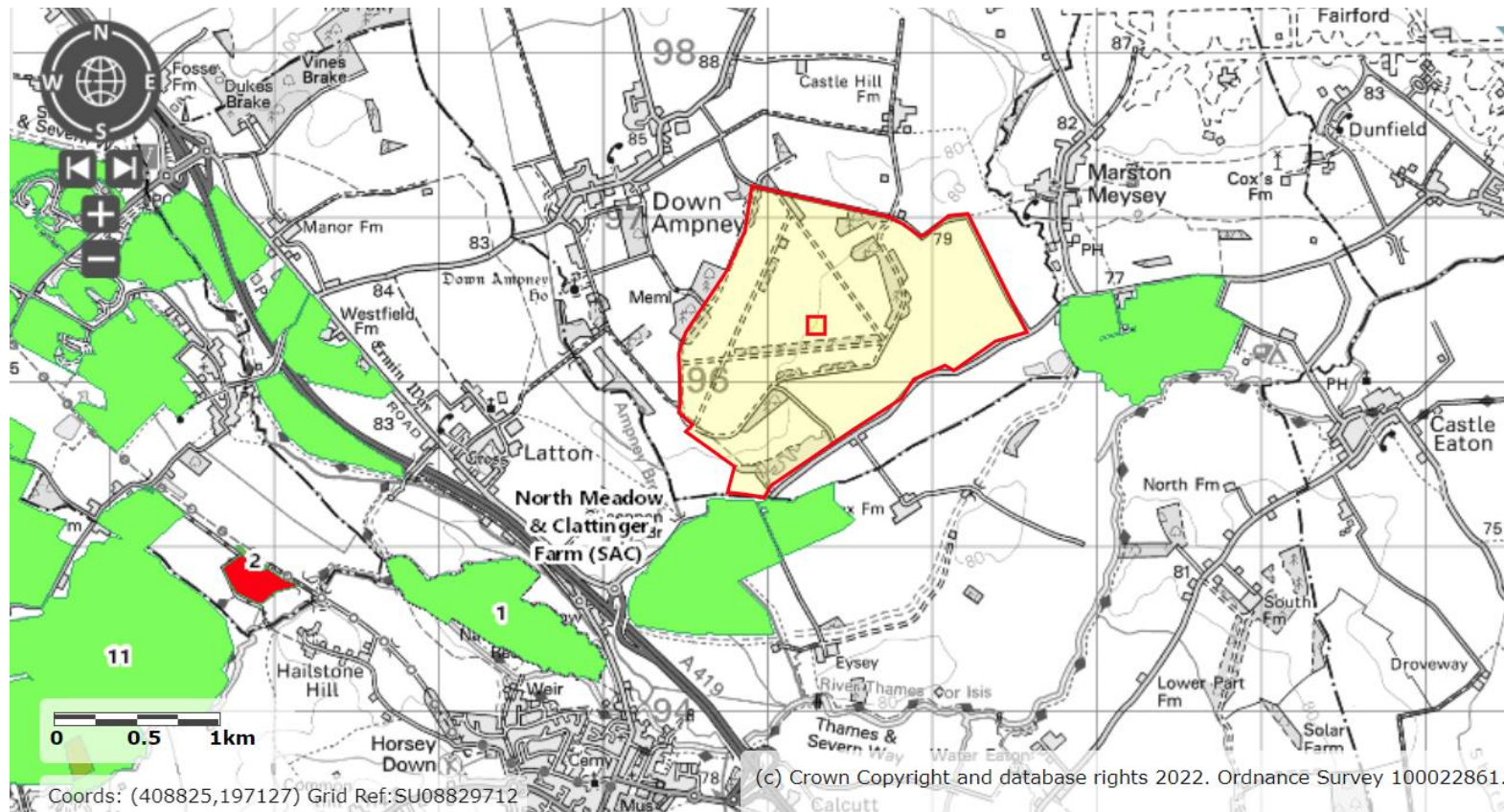
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Increase in pests (e.g. flies)	Local human population	Air transport and over land	Adherence to planning conditions and strict waste acceptance procedures will minimise the risk of non-compliant wastes being accepted. The permitted waste types are unlikely to attract significant numbers of pests. Regular site inspections will be carried out. Should any evidence of pests be found, steps will be taken immediately to eradicate them.	Unlikely due to mitigation measures in place.	Harm to human health, nuisance, loss of amenity.	Not significant due to waste types and management techniques employed.
Flooding of site	Local human population and local environment	Flood waters	The vast majority of the site is in flood zone 1 with very small operational areas in Flood Zone, this has been subject of detailed scrutiny by the EA already. In the unlikely event of flood that carries materials out of the quarry void the permitted waste types are inert so any waste washed off site will add to the volume of the local post-flood clean-up workload, rather than the hazard.	Unlikely due to mitigation measures in place.	If waste is washed off site it may contaminate buildings / gardens / natural habitats downstream.	Not significant due to management techniques employed.
All on-site hazards: wastes; machinery and vehicles.	Local human population and / or livestock after gaining unauthorised access to the waste operation.	Direct physical contact	Site security measures to prevent unauthorised access. Operations will also accord with current Health & Safety legislation.	Unlikely due to mitigation measures in place.	Bodily injury	Not significant due to measures deployed to protect the site.
Arson and / or vandalism causing the	Local human population	Air transport of smoke. Spillages and	The risk of fire is restricted to a breakout of fire on site plant or vehicles, either inadvertently or deliberately. The Environmental	Unlikely due to waste types and mitigation measures in place.	Respiratory irritation, illness, and nuisance to local population. Injury	Not significant.

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release of polluting materials to air (smoke or fumes), water or land.	and local environment.	contaminated firewater by direct run-off from site and via surface water drains and ditches.	Management System identifies potential accidents, incidents, and actions to avoid potential accidents include Maintenance and inspection regime for all site plant and vehicles; and Removal of plant and machinery when site not operational.	Management techniques should prevent contaminated fire water causing pollution to water courses.	to staff, fire fighters or arsonists/vandals. Pollution of water or land.	
Accidental fire causing the release of polluting materials to air (smoke or fumes), water or land.	Local human population and local environment	Air transport of smoke. Spillages and contaminated firewater by direct run-off from site and via surface water drains and ditches.	The risk of fire is restricted to a breakout of fire on site plant or vehicles, either inadvertently or deliberately. The Environmental Management System identifies potential accidents, incidents, and actions to avoid potential accidents include Maintenance and inspection regime for all site plant and vehicles; and Removal of plant and machinery when site not operational.	Unlikely due to waste types and mitigation measures in place. Management techniques should prevent contaminated fire water causing pollution to water courses.	Respiratory irritation, illness, and nuisance to local population. Injury to staff, fire fighters or arsonists/vandals. Pollution of water or land.	Not significant.
Spillage of liquids, leachate from waste, contaminated rainwater run-off from waste e.g., containing suspended solids.	All surface waters close to and downstream of site.	Direct run-off from site across ground surface, via surface water drains, ditches etc. Indirect run-off via the soil layer.	The Environmental Management System provides for secondary containment of non-wastes such as fuels, where present. The Waste Acceptance Procedures ensure that no liquid, contaminated or non-inert wastes will be accepted. The quarry has been designed to ensure that there is no direct uncontrolled run-off from the site and any discharges subject to separate regulatory control.	Unlikely due to mitigation measures in place.	Acute effects: oxygen depletion, fish kill and algal blooms. Chronic effects: deterioration of water quality	Not significant due to management and mitigation techniques employed.

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Spillage of liquids, leachate from waste, contaminated rainwater run-off from waste e.g., containing suspended solids.	Abstraction from watercourse downstream of facility (for agricultural or potable use).	Direct run-off from site across ground surface, via surface water drains, ditches etc. then abstraction.	As above. Strict Waste Acceptance Procedures are in place to minimise the risk of non-compliant wastes being accepted. The quarry has been designed to ensure that there is no direct run-off from the site and any discharges subject to separate regulatory control. No liquid wastes at site will be permitted and the Management System provides for secondary containment of non-wastes such as fuels, where present.	Unlikely due to mitigation measures in place.	Acute effects, closure of abstraction intakes.	Not significant due to management and mitigation techniques employed.
Spillage of liquids, leachate from waste, contaminated rainwater run-off from waste e.g., containing suspended solids.	Groundwater	Transport through soil/groundwater then extraction at borehole.	The permitted waste types will not contaminate groundwater. The HRA considers the risks to groundwater, including rogue loads and provides mitigation. The Management System provides for strict waste acceptance procedures to ensure only inert wastes are received on site, including a rejection procedure for non-permitted waste. The quarry has been designed to ensure that there is no direct run-off from the site.	Unlikely due to mitigation measures in place.	Chronic effects: contamination of groundwater, requiring treatment of water or closure of borehole.	Not significant due to management and mitigation techniques employed.
Contaminated waters used for recreational purposes	Local human population	Direct contact or ingestion.	The permitted waste types are unlikely to contaminate groundwater. The Management System provides for strict waste acceptance procedures to ensure only inert wastes are received on site, including a rejection procedure for non-permitted waste. The quarry has been designed to ensure that there is no direct run-off from the site.	Unlikely to occur as no recreational use proposed on- site, or nearby.	Harm to human health - skin damage or gastro-intestinal illness.	Not significant due to management and mitigation techniques employed.

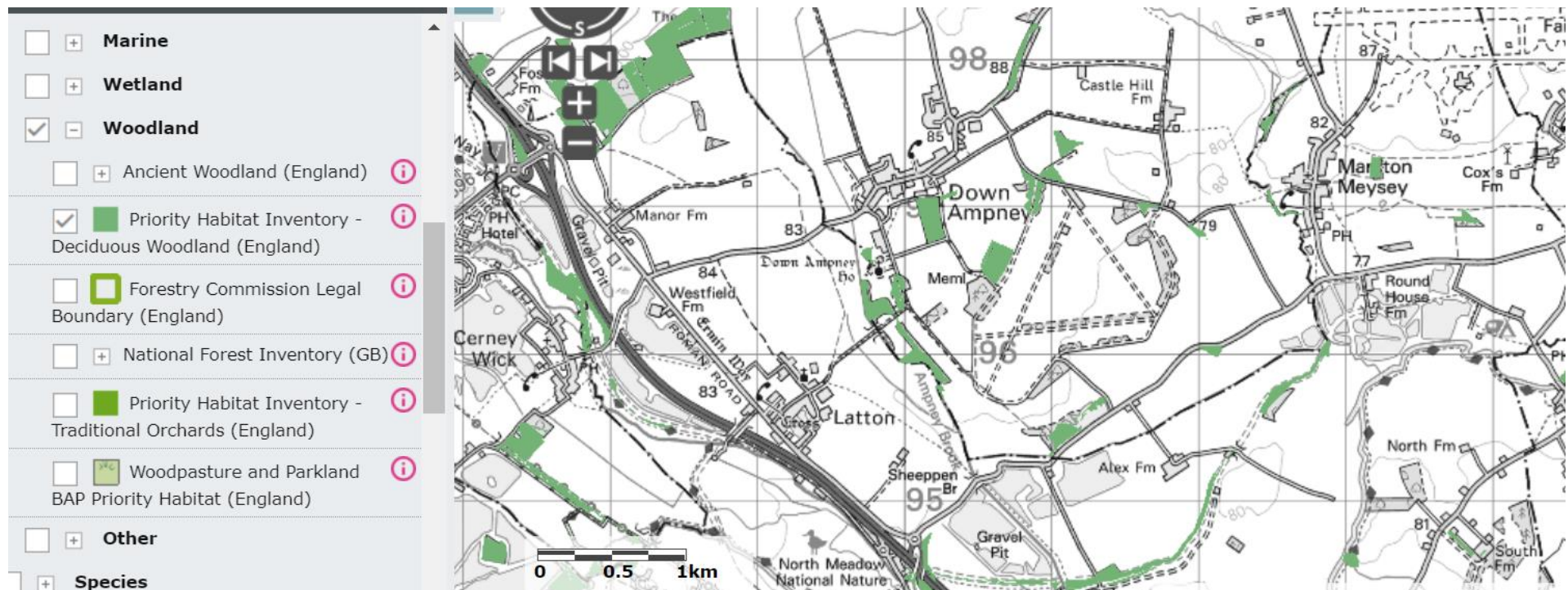
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Protected sites - European sites and SSSIs; Priority habitats	Dust, noise, contaminated run-off leachate etc.	Any	Within a 5km radius of the site there are several protected sites, including the recently expanded CWP SSSI, covering operational quarries to the south of Airfield. In addition, there is Priority Habitats woodland on the margins of the site.	Unlikely due to mitigation measures in place. The likelihood of Impact has been fully assessed through EIA in consultation with County Ecologist, EA, and Natural England and has already been found to be acceptable. Natural England raise no objection to the proposals. An HRA has been carried out by GCC considering all of the activities at Airfield Quarry, not simply the restoration subject to this ERA, and it was agreed by NE as a competent body (included in Permit application)	Harm to protected site through toxic contamination, nutrient enrichment, smothering, disturbance, predation etc.	Not significant due to management and operating techniques employed, and waste types accepted on site.





Extract of Magic Map showing Cotswold Water Park SSSI, North Meadow (1) and Elm Lea (2) SAC.





Extract of Magic Map showing Priority Habitat woodland.