

## 011 Assessment of Environmental Impact

<b>Farm Name:</b> Crockway Farm	<b>Applicant:</b> Crockway Farms Ltd
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**Date;** Jan 2024      Prepared by; Jim Wright and The Farm Consultancy Group

Source of Emission	Emission	Receptor	Description of Impact and Duration of impact i.e. short term (ST), medium (MT) or long term (LT)	Significance of negative impacts: major +++ moderate ++ minor +, nil 0	Mitigation / Management Measures e.g. installation planning, technical measures
Pig production incl cleaning out, feed storage, use of machinery	Ammonia	Air Land Plants	Direct toxic effect on trees (ST) Nutrient enrichment of soils (LT) Increased acidification of soil close to housing (LT) Changes to sensitive ecosystems (LT)	++ + ++ ++	<ul style="list-style-type: none"> <li>• Feed targeted to maximise FCR and minimise amount of ammonia produced</li> <li>• Frequent removal of slurry</li> <li>• Provision of sufficient straw in bedding to bind nitrogen</li> <li>• Additional modelling carried out by AS Data and ecologist to ascertain level of impact- no impact found.</li> <li>• Variation V006 will not increase emission levels above where EA have already approved under last variation as per Doc 012.</li> </ul>
	Odour	Humans	Nuisance (ST)	+	<ul style="list-style-type: none"> <li>• Pig pens kept clean</li> <li>• Avoid overflow from feed and drinking systems</li> <li>• Surfaces arranged to avoid build up of stagnant water/effluent</li> <li>• Yards kept clean</li> <li>• Maintenance and correct positioning of drinkers to avoid spillage</li> <li>• High humidity and condensation avoided within buildings through correct ventilation</li> </ul>

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Pig production incl cleaning out, feed storage, use of machinery – cont.	Dust	Humans	Nuisance (ST) Contributes to odours (ST) Health issues - inhalation (LT)	0 0 ++	<ul style="list-style-type: none"> <li>Regular clearing of dust to prevent build up within buildings, on roofs and around vents as part of disease control strategy</li> <li>Production of dust minimised through choice of bedding and good storage of materials.</li> </ul>
		Plants	Covers leaves reducing photosynthesis (ST)	nil	
		Land	Nutrient enrichment of soils (LT)	+	
		Water	Nutrient enrichment (MT)	0	
		Air	Impacts on air quality (ST)	0	
	Noise	Humans	Nuisance (ST)	0	Noise Management Plan.
	Zoonoses , notifiable diseases	Humans Livestock	Biosecurity risks (ST)	++	<ul style="list-style-type: none"> <li>Secure site with visitor policy</li> <li>Livestock monitored for signs of disease, and incidents reported quickly</li> <li>Defra biosecurity guidance followed by all staff, contractors and visitors</li> </ul>
	Spillage of feed, litter, slurry, manure	Land	Nitrogen and Phosphorus levels in excess of crop requirements in soil (ST) Potential for increased mineral or metal content of soils (LT)	++ +	<ul style="list-style-type: none"> <li>Manure and slurry storage facilities with all liquid contained</li> <li>Spills cleaned up and disposed of safely</li> </ul>
		Water	Possible toxic effects on wildlife (ST) Increased biochemical oxygen demand (BOD) of watercourses (ST)	++ ++	<ul style="list-style-type: none"> <li>Manure, slurry and yard runoff, storage facilities.</li> </ul>
	Used disinfectants	Water	Possible toxic effects on wildlife (ST) Increased biochemical oxygen demand (BOD) of watercourses (ST)	+ +	<ul style="list-style-type: none"> <li>Disposal into slurry tanks</li> <li>Use of Defra/NOAH approved disinfectants</li> </ul>
Use of Vehicles	Soil,	Land	Soil compaction (ST) Transfer of soil across and off the installation (ST)	0 0	<ul style="list-style-type: none"> <li>Trafficking avoided when soil conditions are not favourable.</li> <li>Careful selection of machinery &amp; tyres.</li> <li>Tyres, operated at correct pressures.</li> </ul>

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Use of Vehicles – Cont.	Spillage of materials in transit	Water	Increased biochemical oxygen demand (BOD) of watercourses (ST) Nutrient leaching from soil to surface waters and groundwater (LT) Nutrient enrichment (eutrophication) of watercourses and ground water (LT)	+ + +	<ul style="list-style-type: none"> <li>All materials are removed from the site by a neighbouring contractor/farmer.</li> </ul>
	Odour, noise	Humans	Nuisance (ST)	+	<ul style="list-style-type: none"> <li>Reference Odour Management Plan &amp; Noise Management Plan</li> </ul>
Disposal of carcasses – on farm incineration	Odour	Humans	Nuisance (ST)	+	<ul style="list-style-type: none"> <li>Reference Odour Management Plan</li> </ul>
	Pests	Humans	Nuisance caused by vermin or flies (ST) Biosecurity risks (ST)	++ +	<ul style="list-style-type: none"> <li>Use of covered/sealed containers</li> <li>Carcasses disposed of as soon as practically possible via onsite incineration</li> <li>Vermin control programme in place</li> <li>On farm incinerator purchased, maintained and serviced.</li> </ul>
		Livestock	Biosecurity risks (ST)	+	<ul style="list-style-type: none"> <li>Use of covered containers</li> <li>All equipment disinfected after use</li> <li>Carcasses disposed of as soon as practically possible via on-site incineration.</li> </ul>
Storage of fuel, chemicals etc.	Fuel, chemicals	Water	Contamination of surface and ground waters (ST)	+	<ul style="list-style-type: none"> <li>Management techniques aimed at avoiding or minimising use.</li> <li>All tanks bunded and compliant with legislation</li> <li>Use of approved chemicals only</li> </ul>
			Killing of animals and plants (ST)	+	
	Odour, health risk – skin contact, inhalation	Humans	Nuisance (ST) Human health issues (ST)	++ +	<ul style="list-style-type: none"> <li>COSHH data sheets available with chemicals, fuel</li> <li>Accident action plan in place</li> <li>Spill kits readily accessible to contain spill</li> <li>Removal of spillage as soon as possible</li> </ul>
Waste storage	Odour	Humans	Nuisance (MT)	++	<ul style="list-style-type: none"> <li>Reference Odour Management Plan</li> </ul>

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	Ammonia	Air Land Plants	Direct toxic effect on trees (ST) Nutrient enrichment of soils (LT) Increased acidification of soil close to housing (LT) Changes to sensitive ecosystems (LT)	+ + 0 +	<ul style="list-style-type: none"> <li>As Odour above</li> </ul>
Waste storage	Slurry, dirty water	Water	Increased biochemical oxygen demand (BOD) of watercourses (ST) Nutrient leaching from soil to surface waters and groundwater (LT) Nutrient enrichment (eutrophication) of watercourses and ground water (LT)	++ ++ ++	<ul style="list-style-type: none"> <li>Tanks regularly checked for integrity</li> </ul>
On farm mill/mix	Dust	Humans	Nuisance (ST) Contributes to odours (ST) Health issues - inhalation (LT)	0 0 +	<ul style="list-style-type: none"> <li>Milling machines to be kept in good mechanical order and well maintained</li> <li>Spills cleaned up and disposed of safely</li> <li>Mill to be part of a regular cleaning procedure</li> </ul>
		Plants Land Water Air	Covers leaves reducing photosynthesis (ST) Nutrient enrichment of soils (LT) Nutrient enrichment (MT) Impacts on air quality (ST)	0 + + +	
	Pests	Humans	Nuisance caused by vermin or flies (ST) Biosecurity risks (ST)	+ +	<ul style="list-style-type: none"> <li>Milling machines to be kept in good mechanical order and well maintained</li> <li>Spills cleaned up and disposed of safely</li> <li>Mill to be part of a regular cleaning procedure</li> </ul>
Non-organic Waste storage and disposal	Waste materials, packaging etc.	Water, Land Air	Residues and products of degradation	+	<ul style="list-style-type: none"> <li>Policy to avoid production where possible.</li> <li>Dedicated storage areas and facilities.</li> <li>Delivered to licensed contractors for re-cycling or disposal.</li> </ul>
Biomass Boiler system	Blockage within the boiler system	Humans Air	Fire or explosion that could result in inhalation of toxic odourless CO2 that could lead to death (ST)	0 to +++	<ul style="list-style-type: none"> <li>Boiler location situated in area that is not air tight and open</li> <li>Regular maintenance of the boiler by qualified contractor</li> </ul>

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	Operation of boiler by unskilled personnel	Humans Air Land	Malfunction of boiler causing fire or explosion (ST)	0 to +++	<ul style="list-style-type: none"> <li>All staff to be given basic onsite training, only fully trained members of staff to use the boiler</li> </ul>
	Inappropriate moisture content of wood fuel	Humans Air Land	Malfunction of boiler causing fire or explosion (ST) or inefficient burning (LT)	0 to +++	<ul style="list-style-type: none"> <li>All wood fed to the boiler will be moisture tested on a weekly basis and recorded</li> </ul>
Biomass boiler system	Wood store fire	Humans Air	Nuisance (ST) Contributes to odours (ST) Health issues - inhalation (LT)	0 to +++	<ul style="list-style-type: none"> <li>Safe distance between boiler and wood store as designated by the manufacture and physical barrier.</li> </ul>
	Dust	Humans Air Land	Nuisance (ST) Contributes to odours (ST) Health issues - inhalation (LT)	+	<ul style="list-style-type: none"> <li>Ensure wood pellet is of the correct grade to use and try not to load when conditions are windy</li> <li>Regularly clean areas that become dusty as per the on-site mill</li> <li>Empty ash using licenced contractors (due to use of wood pellets there is minimal ash, this is stored in a locked bunded bin until sufficient volume to export)</li> </ul>