H1 Environmental Risk Assessment for Grove Farm Pig Unit

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? If it occurs, who is responsible for what?**	**How likely is this contact?**	**What harm can be caused?**	**What is the risk that remains? The balance of probability and consequence**

Table 1 Assessment of odour risk

Odour from feed delivery & storage	Sensitive receptors within 400m (Residential dwellings)	Air	Measures as described in SGN EPR 6.09 'How to comply' V2: • Odour Management Plan in place. • Feed delivery will be sealed to minimise atmospheric dust. • Any spillage of feed around bins is immediately cleaned up. • The condition of feed bins is checked frequently so that any damage or leaks can be identified. • The unit is relatively isolated so there is minimal risk of dust from feedstuffs causing direct odour nuisance.	Unlikely	Odour annoyance	Not significant
• Odour arising from problems with the ventilation system • Inadequate air movement in the house leading to high humidity & wet bedding.	Sensitive receptors within 400m (Residential dwellings)	Air	Measures as described in SGN EPR 6.09 'How to comply' V2: • The ventilation system will be designed to efficiently remove moisture from the house • The ventilation system will be regularly adjusted according to the age and requirements of the pigs • Stocking density maintained at or below levels set out in welfare regulations.	Unlikely	Odour annoyance	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? If it occurs, who is responsible for what?**	**How likely is this contact?**	**What harm can be caused?**	**What is the risk that remains? The balance of probability and consequence**
Manure and slurry management: • Odours arising from poorly managed muck and slurry collection, removal and distribution • The use of insufficient or poor-quality straw • Spillage of water from drinking systems • Disease and vice outbreaks.	Sensitive receptors within 400m (Residential dwellings)	Air	Measures as described in SGN EPR 6.09 'How to comply' V2: • Controls on feed and ventilation (see above) help to maintain air quality • Additional controls include insulated ceilings to prevent condensation • Regular maintenance and correct positioning to avoid overflow from feed and drinking systems • Concrete floors to prevent water ingress and surfaces arranged to avoid build-up of stagnant water • Stocking density at optimal levels to prevent overcrowding • Pens and yards kept clean • Solid manure pushed directly into covered store rather than being moved by scrapers across the yard • Slurry collection systems enclosed and regularly emptied to avoid anaerobic conditions • Frequent removal of manure and slurry; wind direction observed.	Unlikely	Odour annoyance	Not significant
Carcase disposal: • Inadequate storage of carcases onsite	Sensitive receptors within 400m (Residential dwellings)	Air	Measures as described in SGN EPR 6.09 'How to comply' V2: • Frequently removed under National Fallen Stock Scheme • Kept covered in lidded containers.	Unlikely	Odour annoyance	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? If it occurs, who is responsible for what?**	**How likely is this contact?**	**What harm can be caused?**	**What is the risk that remains? The balance of probability and consequence**
Buildings: • Cleaning and disinfection • Emptying slurry pit • Removal of slurry & solid manure	Sensitive receptors within 400m (Residential dwellings)	Air	Measures as described in SGN EPR 6.09 'How to comply' V2: • Pens and yards kept clean • Solid manure pushed directly into covered store rather than being moved by scrapers across the yard • Slurry collection systems enclosed and regularly emptied to avoid anaerobic conditions • Frequent removal of solid manure and slurry, wind direction observed • Slurry not agitated on removal unless necessary and potentially odorous spillages cleared up.	Likely	Odour annoyance	Not significant
Odour arising from manure and slurry spreading	Sensitive receptors within 400m (Residential dwellings)	Air	As above • Manure exported to other farms for use • Any that is spread on land is highlighted in the manure management plan and comply with NVZ regulations • Intermittent activity only.	Likely	Odour annoyance	Not significant
Odour arising from manure and slurry	Sensitive receptors within 400m (Residential dwellings)	Air	Measures as described in SGN EPR 6.09 'How to comply' V2: • Site will operate under an odour management plan (OMP).	Likely	Odour annoyance	Not significant if managed in accordance with the OMP

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? If it occurs, who is responsible for what?**	**How likely is this contact?**	**What harm can be caused?**	**What is the risk that remains? The balance of probability and consequence**
Storage – slurry lagoon, FYM field heaps	Sensitive receptors within 400m (Residential dwellings)	Air	Measures as described in SGN EPR 6.09 'How to comply' V2: • Feed selection to minimise excretion of nutrients • Storage areas (inc. field heaps) sited away from neighbours • Reduced surface area of above ground store • Areas of open, dirty concrete minimised • Stores emptied regularly.	Likely	Odour annoyance	Not significant

Table 2 Assessment of noise risk

Noise problems from large vehicles travelling to and from the farm. Mobile source	Sensitive receptors within 400m (Residential dwellings)	Air	Measures as described in SGN EPR 6.09 'How to comply' V2: • Vehicles are required to be driven on to and offsite with due consideration for neighbours • Deliveries of feed and fuel are made only during the daytime, if possible, so that disturbance is minimised • General animal movements made during daylight hours and of short duration, with minimum stress • All vehicles maintained so as to minimise engine noise and are driven slowly to and from the site • Roads and tracks maintained to minimise noise produced.	Unlikely	Noise annoyance	Not significant
Large vehicles onsite for delivering feed, loading live pigs at end of the growing period, removal of	Sensitive receptors within 400m (Residential dwellings)	Air	Measures as described in SGN EPR 6.09 'How to comply' V2: • Vehicles need to be well maintained and must be driven slowly around the site • Engines to be switched off when not in use	Unlikely	Noise annoyance	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? If it occurs, who is responsible for what?**	**How likely is this contact?**	**What harm can be caused?**	**What is the risk that remains? The balance of probability and consequence**
muck and slurry from houses. Mobile source			• Vehicles which are fitted with an audible 'vehicle reversing' warning system are generally used only in the daytime • Idling of machines avoided and engine revs kept low with an effective silencer • Need for scraping minimised and underground slurry transfer systems in place from manure store to tank • Slurry tanker filling & emptying will be an intermittent activity • Machinery & equipment sited as far as possible from neighbours.			
Small vehicles travelling to and from the farm e.g., staff and visitors' cars, courier van deliveries, etc Mobile source	Sensitive receptors within 400m (Residential dwellings)	Air	Measures as described in SGN EPR 6.09 'How to comply' V2: • Small vehicles arrive during the normal working day and therefore are seen as low risk	Unlikely	Noise annoyance	Not significant
Feed transfer from lorry into bins Fixed source	Sensitive receptors within 400m (Residential dwellings)	Air	Measures as described in SGN EPR 6.09 'How to comply' V2: • Buildings act as screen between delivery vehicle discharge point and nearest residential dwellings. • Vehicles are well maintained and designed so that noise during feed transfer is minimised • Conveyors and augers not operated when empty	Unlikely	Noise annoyance	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? If it occurs, who is responsible for what?**	**How likely is this contact?**	**What harm can be caused?**	**What is the risk that remains? The balance of probability and consequence**
			• Blower and vacuum type delivery vehicles fitted with low noise units.			
Pigs Mobile source	Sensitive receptors within 400m (Residential dwellings)	Air	Measures as described in SGN EPR 6.09 'How to comply' V2: • Noise from pigs may be considered to be a likely cause for complaint during the growing period • During loading, noise from animals is minimised by careful handling &by prompt removal of the lorry from site when full.	Unlikely	Noise annoyance	Not significant
Personnel Mobile source	Sensitive receptors within 400m (Residential dwellings)	Air	Measures as described in SGN EPR 6.09 'How to comply' V2: • Staff and other contractors are required to carry out their work without creating excessive noise from shouting and use of radios, etc.	Unlikely	Noise annoyance	Not significant
Repairs	Sensitive receptors within 400m (Residential dwellings)	Air	Measures as described in SGN EPR 6.09 'How to comply' V2: • Noise management plan (NMP) in place • If repairs to the site are required, the work is undertaken with due regard for possible noise nuisance and during the normal working day • In the event of major repair work being undertaken which is likely to cause significant noise and disruption, neighbouring residents will be notified in advance.	Unlikely	Noise annoyance	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? If it occurs, who is responsible for what?**	**How likely is this contact?**	**What harm can be caused?**	**What is the risk that remains? The balance of probability and consequence**
Manure/slurry spreading	Sensitive receptors within 400m (Residential dwellings)	Air	Measures as described in SGN EPR 6.09 'How to comply' V2: • Machinery operated at reasonable times, where possible, and idling avoided • Equipment maintained to optimum standards • Intermittent activity.	Unlikely	Noise annoyance	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? If it occurs, who is responsible for what?**	**How likely is this contact?**	**What harm can be caused?**	**What is the risk that remains? The balance of probability and consequence**

Table 3 Assessment of fugitive emissions risk

To air						
Dust (Including bioaerosols) Sources: • Straw • Feed	Sensitive receptors within 100m (Residential dwelling and agricultural premises): - • Nuisance • Contributes to odours • Human health (inhalation) Surrounding vegetation: Covers leaves and inhibits photosynthesis Surrounding land: Nutrient enrichment of soils	Air	Measures as described in SGN EPR 6.09 'How to comply' V2: • Use of suitable bedding materials and good storage of such materials • Use of pelleted feed delivered in sealed systems and stored in covered containers • Regular clearing of dust to prevent build up within buildings, on roofs and around vents, as part of the disease control strategy	Dust could potentially reach the sensitive receptors when a strong wind blows in that direction which it does on most occasions. Management actions should prevent this happening.	Nuisance: dust on surrounding vegetation, cars, clothing Smothering and direct damage to nearby vegetation. Pigs/staff may get stressed and become unwell.	Not significant if managed carefully

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? If it occurs, who is responsible for what?**	**How likely is this contact?**	**What harm can be caused?**	**What is the risk that remains? The balance of probability and consequence**
	Contributes to respiratory problems for pigs and staff.					
Ammonia Source: Pig housing & solid manure and slurry storage, removal & spreading	Sensitive receptors within 400m (Residential dwellings) Pigs and staff: High levels can cause respiratory problems. Also perceived as nuisance as it contributes to odours Surrounding vegetation: Direct toxic effect and changes to	Air	Measures as described in SGN EPR 6.09 'How to comply' V2: • Mitigation measures as for odour • Feed formulated to match pig requirements and to minimise amount of ammonia produced • Rations under periodic review • Provision of sufficient straw in bedding to bind nitrogen, where appropriate • Ventilation system designed to provide optimal environment and regularly monitored & maintained • Covered slurry store • Regular monitoring of tank & store contents & maintenance of facilities and equipment • Frequency of manure/slurry removal to optimise pen cleanliness • Dedicated purpose-built facilities for slurry and manure • Manure/slurry spread at low level and in accordance with the Manure Management Plan and NVZ rules. • Fully trained operators • Soils regularly analysed and applications made in response to crop requirements to avoid spreading more slurry/manure than is needed.	The impact of ammonia on air emissions from the installation has been addressed using the H1 methodology. EA advised detailed dispersion modelling on nearby wildlife sites not required to obtain a permit in Preapplicatio	Aerial deposition and direct toxic effect on trees Nutrient enrichment & acidification of soils and changes to sensitive ecosystems Respiratory problems in humans and mammals	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? If it occurs, who is responsible for what?**	**How likely is this contact?**	**What harm can be caused?**	**What is the risk that remains? The balance of probability and consequence**
	sensitive ecosystems Surrounding land: Nutrient enrichment & acidification of soils.			n report date 14/04/26. .		
Zoonoses and notifiable diseases	Human health and livestock health	Air/direct contact	Measures as described in SGN EPR 6.09 'How to comply' V2: • Detailed biosecurity precautions in place, e.g., frequent stock inspection, use of disinfectants and appropriate clean overalls, boots, etc for staff, visitors, and contractors, to prevent spread of disease • Secure site visitor policy • Livestock monitored for signs of disease and incidents reported quickly • Use of a health plan, with specialist veterinary input in place.	Unlikely	Human and livestock health implications	Not significant if managed carefully
To water						
Nutrients such as N and P plus organic matter Source: Wash water (slurry) runoff to nearby watercourse,	Adjacent watercourse Nutrient leaching from soil to surface waters and	Land	Measures as described in SGN EPR 6.09 'How to comply' V2: • Wash water (slurry) runoff is diverted into above ground storage tank • Kerbing prevents wash water entering any nearby watercourse	Unlikely	Pollution of watercourse leading to eutrophicatio n and poisoning of	Not significant if managed carefully

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? If it occurs, who is responsible for what?**	**How likely is this contact?**	**What harm can be caused?**	**What is the risk that remains? The balance of probability and consequence**
manure and slurry spreading	ground waters causing eutrophication and increased biochemical oxygen demand of watercourses		• Used bedding/feed spilt on yard/roadways during clean out is cleaned up. • Field manure heaps sited away from watercourses and boreholes. • Manure management plan followed, including NVZ rules for spreading manure and slurry.		flora and fauna	
Spillages from storage and use of pesticides and fuel/chemicals	Vulnerable groundwater beneath site	Land	Measures as described in SGN EPR 6.09 'How to comply' V2: • Management techniques employed aimed at avoiding or minimising use where possible • Use of approved chemicals only • Operators fully trained and all equipment regularly maintained to avoid any in-field spillage or discharge • All tanks bunded and compliant with legislation.	Unlikely	Contaminate surface and groundwater Killing flora and fauna	Not significant
To land						
Ammonia from storage of slurry, manure, & housing	Sensitive nature and conservation identified in preapplication screening.	Air	As for 'Assessment of odour risk' and 'To water' above • Feed selected to minimise excretion of nutrients • Storage sites sited away from sensitive receptors • Slurry lagoon covered.	Unlikely The impact of ammonia on air emissions from the installation	Direct toxic effect on trees, nutrient enrichment & acidification of soils	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? If it occurs, who is responsible for what?**	**How likely is this contact?**	**What harm can be caused?**	**What is the risk that remains? The balance of probability and consequence**
	EA advised detailed dispersion modelling on nearby wildlife sites not required to obtain a permit in Preapplication report date 14/04/26.			has been addressed using the H1 methodology.	Changes to sensitive ecosystems	
Waste materials, packaging, etc. Source: Non-organic waste storage and disposal	Neighbouring dwellings and surrounding habitats and countryside	Air	Measures as described in SGN EPR 6.09 'How to comply' V2: • Policy to avoid production where possible • Dedicated storage areas and facilities • Collected by licensed contractors for recycling or disposal • Regular checks made for rubbish dumped by third parties.	Unlikely	Amenity value of countryside spoilt by rubbish Possibility of causing harm to wildlife.	Not significant
Pests						
Flies on manure heap could move	Neighbouring dwelling houses	Air	Measures as described in SGN EPR 6.09 'How to comply' V2: • Pest management program in place	Unlikely	Flies & rats are a vector of pollution	Not significant if carefully managed

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? If it occurs, who is responsible for what?**	**How likely is this contact?**	**What harm can be caused?**	**What is the risk that remains? The balance of probability and consequence**
offsite and affect nearby residents Also, birds, rats, etc			• Manure heap is regularly inspected for maggots and flies • Heaps will be treated with pesticides and covered with sheeting if flies become an issue • Food sources covered and secure from pests • Pest control program in operation.		that can harm human health Concerns about this pollution can cause offence and affect amenity	

Table 4 Assessment of accident risk

Spillages from pesticide and biocide handling and storage areas escaping	Potentially polluting liquids flow over yard to clean drain inlet, ditch, stream, pond, swale or surrounding land. Vulnerable groundwater beneath site	Flowing over yard or through cracks in poor impermeable surface and through the ground	Measures as described in SGN EPR 6.09 'How to comply' V2: • Accident Management Plan in place • Repair any infrastructure and design appropriate containment measures • Maintenance and regular inspection procedure designed and implemented • Foot dips on good concrete with drains to slurry system and located where overflowing gutters will not dilute • Regular inspection of the facilities and records kept • Dedicated containers for storage with impermeable hard standing within bund • Removed from site by licensed contractor • Damaged or suspect packaging rejected at time of delivery.	Very unlikely	Contamination of local groundwater and potential nearby abstractions	Not significant with measures indicated

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? If it occurs, who is responsible for what?**	**How likely is this contact?**	**What harm can be caused?**	**What is the risk that remains? The balance of probability and consequence**
Incorrect disposal of wash water	Clean drain, ditches, local watercourse & soakaways	Drains, ditches, land	Measures as described in SGN EPR 6.09 'How to comply' V2: • Staff trained in correct operation procedures • All drains marked • All drains shown on drainage plan.	Unlikely	Contamination of ground and surface waters	Not significant
Acts of vandalism which cause damage to structures and fittings	Surrounding land, surface and ground water	Land, water	• Site security	Low	Contamination of soil and/or water	Low
Flooding and other storm damage	Surrounding land, surface and ground water	Land, drains, watercourses	• Good site layout and design • Maintenance of site infrastructure • Observe weather forecasts and warnings.	Yearly chance of surface water flooding (flash flooding) is high – around the onsite pond & proposed pig houses 3-4.	Water and soil pollution	Low

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? If it occurs, who is responsible for what?**	**How likely is this contact?**	**What harm can be caused?**	**What is the risk that remains? The balance of probability and consequence**
Power outage causing failure of slurry pumping systems resulting in tanks overflowing Failure of automatic liquid level control sensors & devices.	Surrounding land, surface and ground water	Land, drains, watercourses	• Mobile generator.	Low	Overflow of storage facilities	Low
Fire	Livestock, staff, buildings, fuel and oils, chemicals, bedding, feed, local habitats, neighbouring dwellings	Air	• Regular inspection and maintenance of equipment • Maintain general fire precautions & farmworkers checking precautions during the day.	Unlikely	Toxic smoke and other pollutants, surface run-off from firefighting water, surface run-off from failed storage tanks, pipes and stores Exploding gas and fuel canisters and containers	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? If it occurs, who is responsible for what?**	**How likely is this contact?**	**What harm can be caused?**	**What is the risk that remains? The balance of probability and consequence**
					Increased numbers of dead animals for disposal.	
Below ground slurry drainage blockages & overflows (including spent disinfectant)	Slurry flow over yard to clean drain inlets into watercourses	Surface water drainage system	• Kerbing to prevent water entering any watercourse • Use of Defra approved disinfectants • Block drain inlet with sandbags • Notify the Environment Agency.	Unlikely	Contamination of local watercourse	Not significant

Used AHDB Pork Model Template B3.5 6A Environmental Risk Assessment. Available at https://ahdb.org.uk/knowledge-library/environmental-permitting-regulations

Change history	Date	Name
Last updated	12/10/2026	Karl Collett
Last review		
Next review	11/10/2026	-
12/10/26 Created with AHDB Pork Model Template B3.5 6A Environmental Risk Assessment to apply for bespoke permit.		