

6a Assessment of Environmental Impacts

Farm Name: Lockes & Blackhall Farm	Applicant: North Farm Livestock
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Date: July 2020

Prepared by: E Jackson

Source of Emission	Emission e.g. odour, noise, dust, ammonia, run-off, spillage	Receptor Air, water, land, Humans, plants	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"> • Feed targeted to maximise FCR and minimise amount of ammonia produced • Frequent removal of FYM/dirty water • Provision of sufficient straw in bedding to bind nitrogen
	Odour	Humans	Nuisance (ST)	++	Please see odour management plan

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Pig production incl cleaning out, feed storage, use of machinery	Odour	Humans	Nuisance (ST)	++	<ul style="list-style-type: none"> • Pig pens kept clean • Avoid overflow from feed and drinking systems • All buildings with natural roof vents • Surfaces arranged to avoid build up of stagnant water/effluent • Yards kept clean • Empty dirty water lagoons promptly • Empty and clean dirty water collection systems to avoid anaerobic conditions • Maintenance and correct positioning of drinkers to avoid spillage • High humidity and condensation avoided within buildings through correct ventilation • Frequent removal of manure & dirty water

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Pig production incl cleaning out, feed storage, use of machinery – cont.	Dust	Humans Plants Land Water Air	Nuisance (ST) Contributes to odours (ST) Health issues - inhalation (LT) Covers leaves reducing photosynthesis (ST) Nutrient enrichment of soils (LT) Nutrient enrichment (MT) Impacts on air quality (ST)	+ + ++ nil + 0 +	<ul style="list-style-type: none"> Regular clearing of dust to prevent build up within buildings, on roofs and around vents as part of disease control strategy Production of dust minimised through choice of bedding and good storage of materials. Treatment of lightly contaminated surface water via ditch
	Noise	Humans	Nuisance (ST)	++	<p>Please see the noise management plan</p> <ul style="list-style-type: none"> General animal movements during daylight hours Feed delivered during daylight hours Machinery operated at reasonable times, wherever possible Equipment maintained to optimum standards Machinery and equipment sited as far as possible from neighbours Idling of machines avoided Voices not raised unnecessarily Roads and tracks maintained to minimise noise produced Augers not operated when empty

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Pig production incl cleaning out, feed storage, use of machinery – cont.	Zoonoses , notifiable diseases	Humans Livestock	Biosecurity risks (ST)	++	<ul style="list-style-type: none"> Secure site with visitor policy Livestock monitored for signs of disease, and incidents reported quickly DEFRA biosecurity guidance followed by all staff, contractors and visitors
	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"> Manure and dirty water storage facilities maintained and regularly inspected Spills cleaned up and disposed of safely
		Water	Possible toxic effects on wildlife (ST) Increased biochemical oxygen demand (BOD) of watercourses (ST)	+++ +++	<ul style="list-style-type: none"> Manure and dirty water storage facilities maintained and regularly inspected
	Used disinfectants	Water	Possible toxic effects on wildlife (ST) Increased biochemical oxygen demand (BOD) of watercourses (ST)	+++ +++	<ul style="list-style-type: none"> Disposal into dirty water lagoon Use of DEFRA/NOAH approved disinfectants
Use of Vehicles	Soil	Land	Soil compaction (ST) Transfer of soil across and off the installation (ST)	++ +	<ul style="list-style-type: none"> Trafficking avoided when soil conditions are not favourable. Careful selection of machinery & tyres. Tyres, operated at correct pressures.

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	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)	0 to +++ Nil to +++ Nil to +++	<ul style="list-style-type: none"> Dusty materials moved within sealed containers or covered vehicles. Integrity of vehicles checked for leakages
	Odour, noise	Humans	Nuisance (ST)	++	<ul style="list-style-type: none"> Type and size of vehicle suitable to task Loads covered or closed
Disposal of carcasses (Fallen Stock Scheme)	Odour	Humans	Nuisance (ST)	+	<ul style="list-style-type: none"> Use of covered and locked containers Carcasses disposed of as soon as practically possible
	Pests	Humans	Nuisance caused by vermin or flies (ST) Biosecurity risks (ST)	+ ++	<ul style="list-style-type: none"> Use of covered and locked containers Carcasses disposed of as soon as practically possible Vermin control programme in place
Disposal of carcasses (Fallen Stock Scheme) Cont.		Livestock	Biosecurity risks (ST)	++	<ul style="list-style-type: none"> Use of covered and locked containers All equipment disinfected after use Carcasses disposed of as soon as practically possible

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Waste storage e.g. dirty water lagoon, field heaps	Odour	Humans	Nuisance (MT)	++	Reference Odour Management Plan <ul style="list-style-type: none"> • Feed selected to minimise excretion of nutrients. • Storage areas sited away from neighbours • Areas of open dirty concrete minimised • Stores regularly emptied
	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"> • As Odour above
Waste storage e.g. dirty water lagoon, field heaps – cont.	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"> • Lagoons regularly checked for integrity

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	Dirty water	Land	Nitrogen and Phosphorus levels in excess of crop requirements in soil (LT) Potential for increased mineral or metal content of soils (LT)	++ +	<ul style="list-style-type: none"> • As water above
Non-organic Waste storage and disposal	Waste materials, packaging etc.	Water, Land Air	Residues and products of degradation	+	<ul style="list-style-type: none"> • Policy to avoid production where possible. • Dedicated storage areas and facilities. • Collected by licensed contractors for re-cycling or disposal.

6a Environmental risk assessment and management plan – Lockes & Blackhall Farm

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 is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence
To air: Dust	General surrounding environment specifically nearest dwelling & air	Wind blown	Regular clearing of dust to prevent build up within buildings, on roofs and around vents as part of disease control strategy. Production of dust minimised through choice of bedding and good storage of materials. Extensive end of batch wash out to reduce build up.	Unlikely as prevailing wind South Westerly (all sensitive receptors to farm are Northernly)	Nuisance	Not significant when carefully managed
To air: Ammonia	General surrounding environment specifically nearest dwelling & air	Wind blown	Feed targeted to maximise FCR and minimise amount of ammonia produced. Frequent removal of FYM/dirty water. Provision of sufficient straw in bedding to bind nitrogen	Unlikely as prevailing wind South Westerly (sensitive receptors to farm are Northernly)	Pollution and damage to sensitive species, ecosystems etc.	Not significant when carefully managed

Pests	General surrounding environment specifically nearest dwelling	Wind blown /movement of pest itself	Use of covered/sealed containers. Carcasses disposed of as soon as practically possible. Vermin control programme in place.	Unlikely as prevailing wind South Westerly (sensitive receptors to farm are Northernly)	Nuisance caused by vermin and/or flies. Biosecurity risk	Not significant when carefully managed
Odour	General surrounding environment specifically nearest dwelling & air	Wind blown	See odour management plan	Unlikely as prevailing wind South Westerly (sensitive receptors to farm are Northernly)	Nuisance	Not significant when carefully managed
Noise	General surrounding environment specifically nearest dwelling & air	Wind blown	See noise management plan	Unlikely as prevailing wind South Westerly (sensitive receptors to farm are Northernly)	Nuisance	Not significant when carefully managed