

H1 Environmental Risk Assessment Longfield Poultry Farm

Source of emission	Emission (e.g., ammonia, dust, run-off, spillage, noise, odour)	Receptor (e.g., air, water, land, humans, plants)	Description of impact and duration of impact i.e., short term (ST), medium term (MT) or long term (LT)	Significance of negative impacts Major +++ Moderate ++ Minor + Nil 0	Mitigation / management measures for this emission
1. Poultry production (for the complete production & cleaning cycle)	Ammonia	Humans	Adverse effect on air quality and health (LT)	+	<p>Measures are described in EPR 6.09 SGN; How to comply; Version2; 2010 and Best Available Techniques (BAT) Reference Document; 2017:-</p> <ul style="list-style-type: none"> Forced ventilation & a non-leaking drinking system (in case of solid floor with deep litter). Reduce crude protein content using a nitrogen balanced diet based on the energy needs and digestible amino acids. Multiphase feeding with a diet formulation adapted to the specific requirements of the production period. Provide chickens a minimum of three separate diets which contain increasingly lower crude protein. Addition of controlled amounts of essential amino acids. Highly digestible amino acid analogues lysine, methionine, threonine, and valine added in milling to supplement otherwise low naturally occurring levels in wheat grains. Designated nature conservation sites within 5km are sensitive receptors for ammonia. Norfolk Valley Fens Special Area of Conservation (SAC)/Buxton Heath Site of Special Scientific Interest (SSSI), Cawston and Marsham Heaths SSSI, Hevingham Park Ancient Woodland/Local Wildlife Site (AW/LWS), Ivy Farm Meadow LWS and Dark Plantation LWS. Environment Agency advised detailed ammonia modelling must be submitted with permit application in the Pre-application Report dated 10th January 2025. A report on the modelling of the dispersion and deposition of ammonia with high velocity fan outlets (Vents greater than 5.5m high, fan efflux velocity 11m/s) for rearing broilers dated 24th October 2025 concluded process contributions will be well below the critical level and load at all the wildlife sites including Norfolk Valley Fens SAC/Buxton Heath SSSI within 5km.
		Plants	Direct toxic effects (ST)	+	
		Land	Nutrient enrichment of soils (e.g., hyper-eutrophication and acidification) (LT)	+	
		Land	Changes to sensitive ecosystems (LT)	+	

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	Dust	Humans	Adverse effect on air quality and health (LT)	++	<p>Measures are described in EPR 6.09 SGN; How to comply; Version2; 2010 and Best Available Techniques (BAT) Reference Document; 2017:-</p> <ul style="list-style-type: none"> Dwelling houses are sensitive receptors within 100m of the boundary. Created a dust & bio-aerosol management plan with routine actions to minimise dust and bio-aerosols from sources onsite and contingency actions and a complaints investigation and reporting procedure if required.
		Humans	Nuisance (ST)	++	
		Plants	Covers leaves, inhibits photosynthesis (ST)	++	
	Noise	Humans	Nuisance (ST)	++	<p>Measures are described in EPR 6.09 SGN; How to comply; Version2; 2010 and Best Available Techniques (BAT) Reference Document; 2017:-</p> <ul style="list-style-type: none"> Dwelling houses, a school and commercial premises are sensitive receptors within 400m of the boundary. Created a noise management plan with routine actions to minimise noise from sources onsite and contingency actions and a complaints investigation and reporting procedure if required.
	Odour	Humans	Nuisance (ST)	++	<p>Measures are described in EPR 6.09 SGN; How to comply; Version2; 2010 and Best Available Techniques (BAT) Reference Document; 2017:-</p> <ul style="list-style-type: none"> Dwelling houses, a school and commercial premises are sensitive receptors within 400m of the boundary. Created an odour management plan with routine actions to minimise odour from sources onsite and contingency actions and a complaints investigation and reporting procedure if required.

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	Pests	Humans	Nuisance caused by vermin and flies (ST)	+	Measures are described in EPR 6.09 SGN; How to comply; Version2; 2010:- <ul style="list-style-type: none"> • Carcasses stored in secure, non-leaking, containers & kept covered. • Containers removed weekly by an approved transporter under the National Fallen Stock scheme. Weekly collections considered to be adequate to avoid attracting flies. • Collection can be increased anytime e.g. in warm weather or in event of higher mortality. • Exchange filled containers for clean & disinfected containers. • Planned pest control with professional contractors licensed to use pest control products.
	Dirty water	Land	Nutrient enrichment of soils (LT)	+	Measures are described in EPR 6.09 SGN; How to comply; Version2, 2010:- <ul style="list-style-type: none"> • Concrete apron & kerbs channel dirty water from inside houses direct into package, below ground storage tanks, diverter valves are not required, • Dirty water storage tanks encased in concrete with capacity for all the dirty water. • Farmworkers and cleaners keep roadways, areas around buildings, dirty water grates and drains clear of litter, etc to avoid backing-up, pooling, or over spilling into surface water drains or on unmade land. • Professional contractors empty dirty water tanks after cleaning and avoids anaerobic conditions developing in the settled sludge. Frequency of emptying can be increased anytime • Planned preventive maintenance for buildings & equipment by company engineers or professional contractors in accordance with any manufacturer's instructions and keeping records of the work.
	Water	++	Nutrient enrichment in watercourses (ST)		
	Water	++	Changes to sensitive ecosystems (LT)		

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	Feed spillage	Land Water	Nutrient enrichment of soils (LT) Nutrient enrichment of water courses (MT)	+ ++	<p>Measures are described in EPR 6.09 SGN; How to comply; Version2; 2010 and Best Available Techniques (BAT) Reference Document; 2017, and DEFRA Code of practice for the welfare of meat chickens and meat breeding chickens, updated January 2024:-</p> <ul style="list-style-type: none"> • Feed stored in package silos and delivered into houses with package augers and pipes. • Silos & feed delivery equipment protected from collision damage from reversing vehicles by careful siting relative to traffic flows in between the houses and with kerbs or barriers. • Feed delivered direct from suppliers and blown directly into the silos. • Deliveries monitored by drivers & farmworkers and any spillage cleared up immediately. • Automatic equipment on which chickens depend inspected by farm workers not less than once per day to check there are no defects, any defects to be repaired immediately. • Planned preventive maintenance for buildings & equipment by company engineers or professional contractors in accordance with any manufacturer's instructions and keeping records of the work.
	Zoonoses & notifiable diseases	Humans & livestock	Human and livestock health implications (ST)	++	<p>Measures are described in EPR 6.09 SGN; How to comply; Version2; 2010 and Best Available Techniques (BAT) Reference Document; 2017, and DEFRA (2018) Code of practice for the welfare of meat chickens and meat breeding chickens, updated January 2024:-</p> <ul style="list-style-type: none"> • Farmworkers who are responsible for care of chickens at any point in time, including holiday cover, part-time & temporary workers will be appropriately trained and qualified. • Use a Health Plan with professional veterinary input as required. • Maintain the bio-security precautions. • Signage warning people against unauthorised entry.

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					<ul style="list-style-type: none"> • Clean protective clothing for farmworkers and visitors. • DEFRA approved disinfectants for boot dips and cleaning houses. • Daily livestock inspections by farmworkers. • Dead chickens must be removed from poultry houses daily.
2. Storage facilities	Fuel, disinfectant, and other chemicals (e.g., due to spills or leakage)	Water Land	Contamination of surface & groundwater with consequential effects on animals (ST) Contamination of land (MT)	+++ +++	<p>Measures are described in EPR 6.09 SGN; How to comply; Version2; 2010 and DEFRA; 2018 Code of practice for the welfare of meat chickens and meat breeding chickens:-</p> <ul style="list-style-type: none"> • Emergency back-up generator with separate bunded fuel tank & regularly check level. • Automatic equipment on which chickens depend inspected by farm workers not less than once per day to check there are no defects, any defects to be repaired immediately. • Disinfectants, pesticides & veterinary medicines stored in dry, frost-free, fire-resistant stores, kept secure against unauthorised use and capable of retaining any spillage. • Package footbaths to be used to avoid overflowing. • Spent disinfectant from footbaths emptied into dirty water tanks. • Implement the accident management plan including using spill kit equipment if disinfectant poses risk of entering any surface or groundwater. • Planned preventive maintenance for buildings & equipment by company engineers or professional contractors in accordance with any manufacturer's instructions and keeping records of the work.

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	Health risks due to contact with stored materials, inhalation, etc.	Humans	Human health issues (ST)	+	Measures are described in EPR 6.09 SGN; How to comply; Version2; 2010:- <ul style="list-style-type: none"> • Manufacturer's safety data sheets for materials kept onsite. • Measures set out in the accident management plan. • Planned preventive maintenance for buildings & equipment by company engineers or professional contractors in accordance with any manufacturer's instructions and keeping records of the work.
3. Surface water drainage system	Fuel, disinfectant & other chemicals (e.g., spills result of unauthorised persons, tampering, vandalism, stealing).	Hevingham Watercourse waterbody	Contamination of surface water (MT) Contamination of land & groundwater (MT)	Minor Minor	Measures are described in EPR 6.09 SGN; How to comply; Version2; 2010:- <ul style="list-style-type: none"> • Perimeter fence & gates & no public access through any part of the site. • Poultry houses & stores will be securely locked at night. • Fuel oil tanks & LPG tanks will be secure & locked. • Keep a list of the substances that would harm the environment if they were to escape including in the raw materials inventory. • Relatively small inventory and quantities of potentially polluting substances stored onsite at any time including fuel oil for back-up generator & disinfectants, etc. • Environment Agency must be notified immediately of any spillage into unmade land and risk of entering into groundwater in accordance with the procedure in the permit.

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	Fire & firefighting water	Hevingham Watercourse waterbody	Contamination of surface water (MT) Contamination of land & groundwater (MT)	Minor Minor	Measures are described in EPR 6.09 SGN; How to comply; Version2; 2010:- <ul style="list-style-type: none"> • Maintain general fire precautions at all times, in accordance with company fire safety procedures & training and farmworkers checking the precautions every day. • Store incompatible materials apart. • Limit size of stockpiles of combustible materials & surround them with fire breaks. • Not storing materials alongside the site boundary. • Store contaminated firewater onsite, where practicable e.g. in the underground dirty water storage tanks for offsite disposal. • Mandatory risk assessments & recommendations provided for buildings & precautions by professional contractors & insurers.
4. Surface water (flash flooding)	Dead birds, litter, dirty water, fuel, disinfectant boot dips etc	Hevingham Watercourse waterbody	Contamination of surface floodwater (ST) Contamination of land & groundwater (MT)	Minor Minor	Measures are described in EPR 6.09 SGN; How to comply; Version2; 2010:- <ul style="list-style-type: none"> • Highest yearly chance of surface water flooding inside study area is medium. Between 1% and 3.3% chance of localised flooding each year in-between poultry houses 4&5 where ground level is low and there is a soakaway. • Elsewhere chances are very low staying at very low between 2040 and 2060. • According to the government website at check-long-term-flood-risk.service.gov.uk.
5. Ground water flooding	Litter, dirty water, fuel, disinfectant boot dips etc	Hevingham Watercourse waterbody	Contamination of surface floodwater (ST) Contamination of land & groundwater (MT)	Minor Minor	Measures are described in EPR 6.09 SGN; How to comply; Version2; 2010:- <ul style="list-style-type: none"> • Yearly chances of ground water flooding in offsite features are medium-high in a field depression within 100m north of the boundary. Between 1% and 3.3% chance of flooding each year. Relevant on account the depression has filled with groundwater for

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					<p>months and risk of overspilling onsite. Excavated an offsite ditch alongside the boundary for extra infiltration.</p> <ul style="list-style-type: none"> • Generally, groundwater flooding is unlikely in this area. • According to the government website at check-long-term-flood-risk.service.gov.uk.
6. Rivers and sea flooding	Dead birds, litter, dirty water, fuel, disinfectant boot dips etc	Hevingham Watercourse waterbody	<p>Contamination of river and seawater (ST)</p> <p>Contamination of land & groundwater (MT)</p>	<p>Minor</p> <p>Minor</p>	<p>Measures are described in EPR 6.09 SGN; How to comply; Version2; 2010:-</p> <ul style="list-style-type: none"> • Yearly chance of flooding from rivers and the sea inside study area is very low staying at very low between 2036 and 2069. Less than 0.1% chance of a flood each year. • According to the government website at check-long-term-flood-risk.service.gov.uk.