Determination of an Application for an Environmental Permit under the Environmental Permitting (England & Wales) Regulations 2016

Decision document recording our decision-making process

The Application Number is: EPR/XP3632QE/V003
The Applicant is: Wayland Farms Limited
The Application is for an Installation located at: Methwold Farm Pig Unit (Comprising Airfield Farm, Feltwell Farm and Methwold Farm), Methwold Group, Brandon Road, Methwold, Thetford, Norfolk, IP26 4RJ

What this document is about

This is a refusal decision document.

It explains how we have considered the Applicant's Application. It is our record of our decision-making process, to show how we have taken into account all relevant factors in reaching our position. This is a substantial variation application to existing permit ERP/XP3632QE.

We consider that in reaching that decision we have taken into account all relevant considerations and legal requirements.

Unless the document explains otherwise, we have accepted the Applicant's proposals. Read the permitting decisions in conjunction with the refusal notice.

We try to explain our decision as accurately, comprehensively and plainly as possible. Achieving all three objectives is not always easy, and we would welcome any feedback as to how we might improve our decision documents in future.

Preliminary information and use of terms

We gave the application the reference number EPR/XP3632QE/V003. We refer to the application as "the **Application**" in this document in order to be consistent.

The Application was duly made on 03/09/2024.

The applicant is Wayland Farms Limited, company number 06727508. We refer to Wayland Farms Limited as "the **Applicant**" in this document.

Wayland Farms Limited's proposed facility is located at Methwold Farm Pig Unit (Comprising Airfield Farm, Feltwell Farm and Methwold Farm), Methwold Group, Brandon Road, Methwold, Thetford, Norfolk, IP26 4RJ. We refer to this as "the **Installation**" in this document.

Summary of the decision

We have decided to refuse the Application.

The reasons for refusal are that, based on the information that has been provided to us by the Applicant, we consider that the predicted ammonia emissions from the proposed Installation are likely to have an adverse effect on the integrity of the designated features of Breckland Special Protection Area ("SPA") and likely to damage the features of interest within Breckland Forest Site of Special Scientific Interest ("SSSI"), and we do not agree that the Applicant has applied all reasonable measures to minimise the predicted ammonia impacts from the proposed Installation. In reaching our decision we have sought the views of Natural England as the appropriate nature conservation body.

We consider that in reaching that decision, we have taken into account all relevant considerations and legal requirements.

How this document is structured

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Section 1: Administrative issues

1.1 Application history

The Installation under existing permit EPR/XP3632QE is subject to the Environmental Permitting Regulations 2016 ("EPR 2016") because it carries out activities listed in Part 2 of Schedule 1 of those regulations (a Scheduled Activity), namely:

- Section 6.9 A(1)(a)(ii) Rearing of pigs intensively in an installation with more than 2,000 places for production pigs (over 30 kg).
- Section 6.9 A(1)(a)(iii) Rearing of pigs intensively in an installation with more than 750 places for sows.

The site is currently permitted to stock 4,874 production pigs (over 30kg) at Airfield Farm, 16,074 production pigs (over 30kg) at Feltwell Farm and 1,360 sows at Methwold Farm. The permit also lists rearing of piglets from 7kg to 30kg as a directly associated activity ("DAA").

For this Application, the Applicant intended to vary the existing Section 6.9 A(1)(a)(ii) Scheduled Activity on the permit to rear up to 14,000 production pigs (over 30kg) at the installation.

The Applicant also intended to vary the permit to cease stocking sows and rearing pigs from 7 - 30kg, which would have removed the DAA stated above and the following Scheduled Activity from the permit:

- Section 6.9 A(1)(a)(iii) Rearing of pigs intensively in an installation with more than 750 places for sows.

As well as varying the existing Section 6.9 A(1)(a)(ii) Scheduled Activity, this Application also included the proposed addition of a new Scheduled Activity onto the permit, namely:

- Section 6.9, Part A(1)(i) – Rearing of poultry intensively in an installation with more than 40,000 places for poultry.

The Industrial Emissions Directive ("IED") defines "poultry" by reference to Directive 90/539/EEC on animal health, which defines that term as:

> *"*fowl, turkeys, guinea fowl, ducks, geese, quails, pigeons, pheasants and partridges reared or kept in captivity for breeding, the production of meat or eggs for consumption, or re-stocking supplies of game.*"*

The Applicant intended to intensively rear up to 714,000 broiler chickens (fowl) at the Installation, so falls within the activity mentioned above. The original application proposed 870,000 broiler places; however, this was reduced to

714,000 in the Applicant's response to a Scheduled 5 Notice (issued on 18/12/2024) which was received on 03/02/2025.

1.2 Receipt of Application

The Application was duly made on 03/09/2024. This means we considered it was in the correct form and contained sufficient information for us to begin our determination; but not that it necessarily contained all the information we would need to complete that determination.

The Applicant made no claim for commercial confidentiality. We have not received any information in relation to the Application that appears to be confidential in relation to any party.

1.3 Consultation on the Application

We carried out consultation on the Application in accordance with the Permitting Regulations, our statutory Public Participation Statement ("PPS") and our own Regulatory Guidance Note ("RGN") 6 for Determinations involving Sites of High Public Interest. RGN 6 was withdrawn as external guidance, but it is still relevant as Environment Agency internal guidance.

We consider that this process satisfies, and frequently goes beyond, the requirements of the Aarhus Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters. We have also taken into account our obligations under the Local Democracy, Economic Development and Construction Act 2009 (particularly Section 23). This requires us, where we consider it appropriate, to take such steps as we consider appropriate to secure the involvement of representatives of interested persons in the exercise of our functions, by providing them with information, consulting them or involving them in any other way. In this case, we consider that our consultation satisfies the requirements of the 2009 Act.

We advertised the Application by a notice placed on our website from 15/10/2024 – 19/11/2024 (inclusive), which contained all the information required by the IED, including telling people where and when they could see a copy of the Application. We also placed an advertisement in the Eastern Daily Press on 15/10/2024 that contained the same information.

We placed a copy of the Application and all other documents relevant to our determination (see below) on our Public Register. Anyone wishing to see these documents could do so and arrange for copies to be made. We also published this Application on our webpages on GOV.UK and made available electronic copies of the Application on that webpage.

We sent copies of the Application to the following bodies, which includes those with whom we have "Working Together Agreements":

- Local Authority – Environmental Protection Department

- UK Health Security Agency (“UKHSA”)
- Director of Public Health
- Health and Safety Executive (“HSE”)

These are bodies whose expertise, democratic accountability and/or local knowledge make it appropriate for us to seek their views directly.

We also consulted Natural England on 30/07/2025 on the draft Habitats Regulations Assessment (“HRA”) for Breckland SPA and the draft Wildlife and Countryside Act (“CRoW”) Appendix 4 assessment for Breckland Forest SSSI. Please see section 3 for further details of our assessment.

Further details of consultation comments and representations we received can be found in Annex 1.

1.4 Requests for Further Information

The Application was received on 08/11/2023; however, we required further information from the Applicant in order for us to consider the Application duly made. This information was requested via a number of not duly made information requests namely:

- On 03/05/2024 the Environment Agency sent a letter via email to the Applicant to Request Further Information (“RFI”).
- On 28/06/2024 the Applicant responded to the RFI by email to provide additional information, consisting of a response document and associated updated supporting information.
- On 10/07/2024 we sent a request for some documents referenced in the response but not provided, and the consultant provided these documents the same day.
- The information was not sufficient to enable us to proceed to duly make the application, so a further RFI email was sent to the Applicant on 22/07/2024.
- On 02/08/2024 the Applicant responded to the RFI by email to provide additional information consisting of a response document and associated updated supporting information.
- Additional information was required regarding the Applicant’s intention to use Airfield Farm in the interim whilst Feltwell Farm is redeveloped to enable us to proceed to duly make the application. Further RFI emails regarding this were sent to the Applicant on 12/08/2024, 19/08/2024 and 28/08/2024.
- The Applicant responded to the RFI’s listed in the point above on 13/08/2024, 27/08/2024, and 02/09/2024 and 03/09/2024, respectively, with additional information.
- After the response on 03/09/2024, it was deemed sufficient to enable us to duly make the Application.

The Application was duly made on 03/09/2024. This means we considered it was in the correct form and contained sufficient information for us to begin our determination; but not that it necessarily contained all the information we would need to complete that determination.

Although we were able to consider the Application duly made, we did in fact need more information in order to determine it and issued information notices on 18/12/2024 and 06/03/2025. A copy of each information notice was placed on our public register. Responses to the notices were received on 03/02/2025 and 13/04/2025 respectively, and copies of this information were placed on our public register.

In addition to our information notices, we received additional information during the determination from the Applicant via email:

- On 03/10/2024 – Details regarding proposal to install acid scrubbers at Methwold Farm. Following being advised via phone call from the consultant of the intention to include the acid scrubbers and sending a RFI email on 30/09/2024 for a proposal document.
- On 25/02/2025 – Details regarding the proposed Galebreaker curtains.
- On 02/05/2025 – Test reports and technical data relating to the proposed acid scrubbers consisting of:
    - Preliminary test report for the proposed acid scrubbers from LUFA Nord-West, dated 30/04/2025.
    - Test report entitled 'Munters Reventa GmbH, Lavamatic exhaust air scrubbing system, For layers and pullet rearing' and reference 'DLG Test report 7521'.
    - Technical data document entitled 'Lavamatic®XL for Poultry, Technical data' from Munters Reventa Germany, dated February 2021
- On 30/06/2025 – A letter from the DLG Test Service regarding the Lavamatic acid scrubber, stating test report expected to be published in the third quarter of 2025.

We made copies of this information available to the public in the same way as the responses to our information notices.

1.5 The legal framework

The Application has been refused. This decision has been made in accordance with the requirements set out in the EPR 2016. The Environmental Permitting regime is a legal vehicle which delivers most of the relevant legal requirements for activities falling within its scope. In particular, the regulated facility is:

- an *installation* as described by the IED; and
- subject to aspects of other relevant legislation which also have to be addressed.

We address some of the major legal requirements directly where relevant in the body of this document. Other requirements are covered in section 5 towards the end of this document.

Section 2: Process Description

2.1 Overview of the proposed facility

The Installation is operated by Wayland Farms Limited and is an existing site, which was originally permitted on 28/03/2008 under EPR/GP3130UC. It is comprised of Airfield Farm, Feltwell Farm and Methwold Farm. The site is currently permitted to stock 4,874 production pigs (over 30kg) at Airfield Farm, 16,074 production pigs (over 30kg) at Feltwell Farm and 1,360 sows at Methwold Farm. The permit also lists rearing of piglets from 7kg to 30kg as a directly associated activity ("DAA").

The Applicant was proposing to vary the permit to:

- Feltwell Farm - stock 14,000 production pigs (over 30kg) in 14 new pig houses.
- Methwold Farm - cease stocking pigs at this farm unit and stock 714,000 broilers in 20 new poultry houses.
- Cease stocking livestock at Airfield Farm (to be used for storage etc.), although it is proposed to be used in the interim whilst Feltwell Farm is redeveloped.

Feltwell Farm

At Feltwell Farm, the proposal was to extend the installation boundary and redevelop the site to construct 14 new rearing houses with a combined capacity for 14,000 production pigs (over 30kg) which would be brought onto site at approximately 35kg and then reared until approximately 110kg, with each cycle being 15 weeks. There would be approximately seven days between cycles. This equated to approximately 3.25 cycles each year. This would be done on an all-in, all-out basis.

The pig houses would be solid floor systems, with straw bedding. All pig houses would be ventilated by high velocity roof fan outlets with emission point higher than 12.25 metres above ground level and an efflux speed at or greater than 10 metres per second and with Galebreaker curtains above concrete wall panels. It was stated within a response received on 25/02/2025 to an information request (sent on 17/02/2025) that the Galebreaker curtains would provide variable inlets to the ventilation system.

Pigs would be fed a three-stage pelleted diet appropriate to the pigs' nutritional requirements at each stage of growth. A lower percentage crude protein and phosphorus in each diet supplemented with essential amino acids, inorganic phosphates, and authorised additives would minimise nitrogen and phosphorus excretion. Feed would be stored in silos and automatically transferred via augers and pipes into the feeders in the pig housing. No onsite milling or mixing of feedstuffs would take place. Water would be supplied to the livestock via non-leaking drinkers.

Roof water from the pig houses would discharge to soakaways filled with stones, a soakaway filled with infiltration crate system or to an infiltration basin,

all located within the installation boundary (as shown on the updated Site Drainage Plan for Feltwell Farm, drawing number '20-L45-IP002B', provided on 28/06/2024 during duly making). Clean surface water runoff would drain to a soakaway French drain filled with stones located within the installation boundary.

Slurry (including wash water) would be channelled into a below ground slurry storage tank and pumped into the lagoons. Solid manure would be stored in a covered building with an impermeable base and a collection and containment system for liquid runoff. Solid manure and slurry would then be exported offsite for spreading on land or supplied as fuel to a biogas plant. At the end of the cycle, the houses would be depopulated, washed, and disinfected ready for the next cycle.

Fallen stock would be removed from houses daily and recorded. Carcasses would be stored in secure, covered containers and frequently removed offsite by an approved transporter under the National Fallen Stock Scheme.

Methwold Farm

At Methwold Farm, the proposal was to extend the installation boundary and redevelop the site to construct 20 new poultry houses with a combined capacity for 714,000 broiler places. Birds would be brought onto site as incubated eggs or day-old chicks and reared to approximately 38 days of age; with thinning taking place at approximately 31 days of the growth cycle, where approximately 25% of the birds would be taken off site. There would be approximately ten days between cycles. This equates to approximately 7.6 cycles each year. This would be done on an all-in, all-out basis. Poultry houses would be pre-warmed at the start of each cycle using LPG heaters.

All poultry houses would be ventilated by high velocity roof fans with emission points higher than 8.2 metres above ground level and an efflux speed at or greater than 10.9 metres per second (as stated in the Schedule 5 Notice response received on 03/02/2025). Heat exchangers on all the houses would be used to manage ventilation for the first 2-3 weeks of the cycle. The poultry houses would also have ridge extraction fans for additional ventilation in warm weather (at a height of at least 6m and an efflux velocity of at least 11m/s, as stated in the Schedule 5 Notice response received on 03/02/2025).

All houses would also have gable end fans and mechanical evaporative cooling units, although these would be operated infrequently to maintain temperature, typically during times of hot weather.

Birds would be fed a four-stage pelleted diet appropriate to the chickens' nutritional requirements at each stage of growth, with lower percentage crude protein and phosphorus in each diet supplemented with essential amino acids, inorganic phosphates, and authorised additives to minimise nitrogen and phosphorus excretion. Feed would be stored in silos and delivered into the houses via augers and pipes. No onsite milling or mixing of feedstuffs would take place. Water would be supplied to the livestock via non-leaking drinkers.

Clean surface water runoff from poultry houses 1-20 would drain to onsite filter trenches filled with stones acting as soakaways and onsite infiltration basins acting as soakaways. Roof water, and uncontaminated water from the evaporative cooling units, from poultry houses 1 - 20 would discharge to French drains filled with stones acting as soakaways and onsite infiltration basins acting as soakaways. All drainage and mitigation measures would be contained within the installation boundary.

At the end of the cycle the houses would be depopulated, washed, and disinfected ready for the next cycle. Litter would be exported from the site to be spread to land or supplied as fuel to a local power station. No litter would be stored onsite. Dirty water would be directed to below ground storage tanks prior to export offsite for spreading on land by a registered carrier. Any condensate from the heat exchangers would also be directed to the dirty water tanks (as stated within the RFI response received on 28/06/2024 during duly making).

Fallen stock during the production cycle would be collected and recorded daily. Carcasses would be stored in secure, covered containers and frequently removed offsite by an approved transporter under National Fallen Stock Scheme. Dead-in-shell and non-viable eggs collected up after the hatching would be macerated, using package mobile equipment delivered to site and washed and disinfected before leaving. Macerated material and dirty wash water would be stored in containers with mortalities, prior to removal offsite, and would not be stored in the dirty water tanks.

There would be two standby generators with a net thermal rated input of 0.516 MWth each, and they would not be tested more than 52 hours per year or operated (including testing) for more than 500 hours per year (averaged over 3 years) for emergency use only as a temporary power source if there is a mains power failure.

It was stated within the original application documents that the intention would be, once varied to a broiler farm, to transfer Methwold Farm to another operator, specifically Crown Chicken Limited.

Following duly making of the application, we were advised of the Applicant's proposal to install acid scrubbers at Methwold Farm on all poultry houses. Additional information provided by the Applicant on 03/10/2025 included details of the system selected, which was Munters Lavamatic® XL wet acid scrubbers. The proposed acid scrubbers are discussed further in section 3.

Airfield Farm

At Airfield Farm, the proposal was to cease stocking livestock and instead use it for general storage purposes. However, it was proposed to temporarily stock 4,874 production pigs (over 30kg) at Airfield Farm in the interim whilst Feltwell Farm was redeveloped. The interim scenarios were summarised in the response received on 02/09/2024 during duly making of the Application.

The key features of the proposed Installation are summarised in table 1 below.

Table 1: Key features of the Installation	
Operational features	**Description**
Feltwell Farm	
Pig rearing	14,000 production pigs (over 30kg) brought onto the farm at approximately 35kg and then reared until approximately 110kg over 15 weeks.
Pig house ventilation	High velocity roof fans (at a height of at least 12.25m and an efflux velocity of at least 10m/s) and Galebreaker curtains.
Manure storage	Maximum of 600 tonnes at any time.
Slurry storage	Below ground slurry storage tank. Slurry lagoon A – 2,426 m^2 surface area, with floating cover. Slurry lagoon B– 3,666 m^2 surface area, with floating cover. The Installation is located within a Nitrate Vulnerability Zone (NVZ) – the Application documents state slurry storage at Feltwell Farm capacity is 6 months and storage tank will conform to the technical measures detailed in the Control of Pollution (Silage, Slurry and Agricultural Fuel Oil) Regulations 1991, amended.
Manure/slurry management	Manure and slurry exported offsite for spreading on land or supplied as fuel to biogas plant.
Waste water management	Wastewater directed to below ground slurry storage tank and pumped to lagoons to await export off site.
Carcass management	Fallen stock during the production cycle collected and recorded daily. Carcasses stored in secure, covered containers and frequently removed offsite by an approved transporter under the National Fallen Stock Scheme.
Site drainage	Roof water from pig houses discharges to soakaways filled with stones, a soakaway filled with infiltration crate system or to an infiltration basin. Clean surface water runoff drains to a soakaway French drain filled with stones. All located within the installation boundary.
Methwold Farm	
Broiler rearing	714,000 broilers brought onto the farm as incubated eggs or 1-day old chicks, with a proportion being thinned at around 31 days of age, and depletion of the remaining birds at approximately 38 days of age
Poultry house ventilation	Heat exchangers (Agro Clima unit (ACU) Clima+200, type2.5 air-to-air heat exchangers) on all poultry houses to be used for the first 2-3 weeks of the cycle. High velocity roof fans (at a height of at least 8.2m and an efflux velocity of at least 10.9m/s). Ridge extraction fans for additional ventilation in warm weather (at a height of at least 6m and an efflux velocity of at least 11m/s). Gable end fans for additional summer cooling.
Poultry house air cleaning system	Munters Lavamatic® XL wet acid scrubbers on all poultry houses (as advised within RFI response received on 03/10/2025).
Litter/manure storage	No litter stored onsite.

Litter/manure management	At depletion all litter exported from the site to be spread to land or supplied as fuel to a local power station.
Waste water management	Wastewater, including condensate from the heat exchangers, directed to below ground storage tanks prior to export offsite for spreading on land by a registered carrier. Macerated material and dirty wash water from the mobile macerator stored in containers with mortalities prior to removal offsite.
Carcass management	Fallen stock during the production cycle collected and recorded daily. Carcasses stored in secure, covered containers and frequently removed offsite by an approved transporter under the National Fallen Stock Scheme.
Site drainage	Clean surface water runoff from poultry houses 1-20 drains to onsite filter trenches filled with stones acting as soakaways and onsite infiltration basins acting as soakaways. Roof water, and uncontaminated water from the evaporative cooling units, from poultry houses 1 - 20 discharges to French drains filled with stones acting as soakaways and onsite infiltration basins acting as soakaways. All drainage and mitigation measures would be contained within the installation boundary.
Airfield Farm	
Proposed use	To cease stocking livestock and use for general storage purposes instead. It is proposed to be used for stocking 4,874 production pigs (over 30kg) in the interim, whilst Feltwell Farm is redeveloped.

The Application has been assessed in line with our guidance: EPR 6.09 Sector Guidance Note – How to comply with your environmental permit for intensive farming (EPR 6.09) (version 2) which can be viewed at the following link: www.gov.uk/government/uploads/system/uploads/attachment_data/file/297084/geho0110brsb-e-e.pdf

and the Best Available Techniques Reference Document ("BREF") for the Intensive Rearing of Poultry or Pigs ("IRPP"), which was published on 21 February 2017. There is a separate Best Available Techniques ("BAT") Conclusions document which sets out the standards that permitted farms have to meet.

The BAT Conclusions document is available via the following link: http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017D0302&from=EN

2.2 The proposed site setting

The Installation is comprised of Airfield Farm, Feltwell Farm and Methwold Farm, and is located approximately 1.1km to the south of Methwold and approximately 1.5km to the North-east of Feltwell. Feltwell Farm is proposed to be extended to have a total installation area of 13.04ha and centred at approximate National Grid Reference (NGR) TL 72747 92948. Methwold Farm

is proposed to be extended to have a total installation area of 25.86ha and centred at approximate NGR TL 73572 92511.

The area surrounding the site is largely agricultural, mostly under arable cultivation. There are 15 dwelling houses located to the south-east of Feltwell Farm, with the closest approximately 20m from the installation boundary. Whilst not owned by the operator or occupied by workers at the Installation, in the RFI response received on 28/06/2024 during duly making, it was stated that most of the dwelling houses nearest to Feltwell Farm are rented to employees working for Cranswick Country Foods Plc and the two furthest dwelling houses are not associated with the Applicant or Cranswick. Warren Energy, an anaerobic digestion plant, is located to the east of Feltwell Farm and is not associated with the Applicant. The closest receptor (residential) identified to Methwold Farm is approximately 150m from the installation boundary, and is not owned by the operator or occupied by workers at the Installation.

There are a number of nature conservation sites in the vicinity, with the following sites adjacent to the eastern edge of the boundary of Methwold Farm: Breckland Forest SSSI and Breckland SPA. Also, within 5km of the Installation are Breckland SAC and Breckland Farmland SSSI. Additionally, within the relevant screening distance are Cranwich Camp SSSI, Didlington Park Lakes SSSI, The Brinks, Northwold SSSI and Weeting Heath SSSI.

Section 3: Reason for refusal

The Application has been refused. The reasons for refusal are that, based on the information that has been provided to us by the Applicant, we consider that the predicted ammonia emissions from the proposed Installation are likely to have an adverse effect on the integrity of the designated features of Breckland SPA and likely to damage the features of interest within Breckland Forest SSSI, and we do not agree that the Applicant has applied all reasonable measures to minimise the predicted ammonia impacts from the proposed Installation.

3.1 How we reached our decision

3.1.1. Pathway

Emissions of ammonia or ammonia deposition (nutrient nitrogen or acid) from farms may lead to both direct and indirect effects on vegetation. Nitrogen deposition can lead to acidification of the ecosystem or act as a fertiliser, leading to nutrient enrichment and subsequent changes in the structure of the habitat.

The Conservation of Habitats and Species Regulations 2017 (which implements the Habitats and Birds Directives) provides protection in law for SACs and SPAs. Government policy is that Ramsar sites are also treated in the same way as SACs and SPAs. Before granting the Permit, we must determine whether the Installation would be likely to have a significant effect on a SAC, SPA or Ramsar site.

The Wildlife and Countryside Act 1981 provides protection in law for SSSIs. Before granting the Permit, we must determine whether the Installation is likely to damage any of the flora, fauna or geological or physiographical features by reason of which a SSSI is designated.

The above legislation, as well as other legislation such as the Environment Act 1995 and the Natural Environment and Rural Communities Act 2006, provides additional protection for flora and fauna whether or not existing in specifically designated conservation sites. We set out below how we have assessed the Application in view of this legislation.

Critical levels and loads[1] are set to protect the most vulnerable habitat types.

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[1] Critical levels and loads have been used by the United Nations Economic Commission for Europe (UNECE) to set targets for reductions in acid rain and the effects of nitrogen on sensitive ecosystems. The system used to work out critical loads has been agreed by the UNECE and is used by individual countries to calculate appropriate standards. Critical loads and levels provide the best available scientific information on the effects of pollutants on ecosystems.

Critical levels are defined as "concentrations of pollutants in the atmosphere above which direct adverse effects on receptors, such as human beings, plants, ecosystems or materials, may occur according to present knowledge". (Source: https://www.icpmapping.org/Definitions_and_abbreviations).

Critical Loads are defined as: "a quantitative estimate of exposure to one or more pollutants below which significant harmful effects on specified sensitive elements of the environment do not occur according to present knowledge". (Source: https://www.icpmapping.org/Definitions_and_abbreviations).

The critical load relates to the quantity of pollutant deposited from air to the ground, whereas the critical level is the gaseous concentration of a pollutant in the air.

A Geographical Information System ("GIS") screening was carried out to a distance of 5km from the proposed Installation boundary to identify any relevant European sites and SSSIs in the vicinity of the proposed Installation. Breckland Special SPA as well as the overlaying Breckland Forest SSSI, were the closest to the installation within these screening distances and were identified as sites that could be potentially damaged by this activity.

Our assessment focusses on Breckland SPA and Breckland Forest SSSI which are subject to the most significant impacts for all relevant risks, and their assessment is conservative over Breckland SAC and the other SSSIs in terms of predicted impacts.

To meet our duty under the Habitat Regulations 2017 and the Wildlife and Countryside Act 1981, we have considered the impacts from the proposed activity on the designated sites. A Habitats Regulations Assessment ("HRA") was carried out for Breckland SPA and an Appendix 4 assessment was carried out for Breckland Forest SSSI. The proposed activity included releases to air of ammonia and ammonia deposition (nutrient nitrogen and acid). The conclusions of our assessment are discussed below.

3.1.2 Proposed ammonia mitigation measures

After the application was duly made on 03/09/2024, we were advised of the Applicant's proposal to install air cleaning abatement on the poultry houses at Methwold Farm, in the form of acid scrubbers. A specific system had been selected, and we were advised that the certification document to support any claim in reduction of ammonia emissions from air cleaning was expected to be available in January 2025.

The Applicant was given the opportunity to provide additional information and/or make changes to their proposed operations with regards to ammonia mitigation measures. This request was formalised via a Notice issued under Schedule 5 of the EPR 2016 ("Schedule 5 Notice") which was issued on 18/12/2024, and the additional information was received on 03/02/2025.

This additional information comprised of a summary document of the proposed ammonia mitigation measures. In addition to the original application, the Applicant proposed crude protein reduction for pigs >30kg on straw, a reduction in broiler numbers from 870,000 to 714,000 places and the air cleaning system on all poultry houses at Methwold Farm – 1 x acid scrubber to be installed on each poultry house and anticipating 75% reduction in ammonia emissions. Within the response it was stated that the certification for the acid scrubbers was expected to be available March 2025, to confirm that the scrubbers could achieve the proposed 75% reduction.

A further Schedule 5 Notice was issued on 06/03/2025 which requested revised ammonia modelling linked to these mitigation measures, to accurately reflect the proposed operating scenarios. Within this Notice, the certification for the acid scrubbers was requested.

The response to the second Schedule 5 Notice was received on 13/04/2025, The submitted revised Ammonia Modelling Report Ammonia Modelling Report (dated 11th April 2025) included a note that the acid scrubber certification was not yet available. Two further Requests for Information ("RFI") emails were sent on 14/04/2025 and 11/06/2025 to request the acid scrubber certification, with responses received on 02/05/2025 and 30/06/2025 respectively. These are covered in Section 1.4 of this document.

The RFI email sent to the Applicant on 11/06/2025 included the following statement "Please be advised that unless the certification document is provided by 30/06/2025, then we will no longer consider the amendment to the application to include the scrubbers and will determine the application as originally submitted." To date, no certification has been received for the acid scrubber system proposed to be installed.

The Applicant has also chosen not to use an acid scrubber system which has already been certified; such certified systems are available for broiler systems.

Therefore, we have assessed the application as originally submitted without the inclusion of the proposed acid scrubbers.

3.1.3 Habitat site condition and background levels

Breckland SPA:
The European Site Conservation Objectives for Breckland SPA (UK9009201_Breckland_SPA_Published_10_Jul_2024 accessed 21/07/2025) includes air quality targets for supporting habitats, which is to "Restore as necessary the concentrations and deposition of air pollutants to below the site-relevant Critical Load or Level values given for this feature of the site on the publicly available 'Air Pollution Information System' ("APIS").

Information from APIS indicates that background levels are higher than the relevant critical loads. The site is overlain by Breckland Forest SSSI, of which, the nearest unit habitat type is coniferous woodland. For locations surrounding

the installation, the most relevant/conservative deposition rate would be associated with the coniferous woodland:

- The background nitrogen deposition is therefore between 31.1 – 31.5 kg N/ha/year and the most relevant/conservative critical load is 5kg N/ha/year.
- The background acid deposition is therefore 2.3 Keq/ha/year and the most relevant/conservative critical load (MinCLmaxN) is 0.536 Keq/ha/year.

Breckland Forest SSSI:

The Breckland Forest SSSI units have undergone site condition assessments by Natural England and 4/7 units are currently in 'unfavourable – recovering' condition. In terms of area (ha), these 4 units represent 99.9% of the designated site. From the air modelling provided by the Applicant, we identified the following SSSI unit at most risk where the PC is >100% for nutrient nitrogen deposition.

Table 2: Unit details for Breckland Forest SSSI – information from Natural England Designated Sites (Site feature condition) accessed on 24/07/2025)

Unit	Status	Habitat type	Last condition assessment
3	Unfavourable - recovering	Coniferous woodland	16/06/2025

Condition history (information from Natural England Designated Sites (Unit Condition Summary) accessed on 24/07/2025) shows that Unit 3 was recorded as in 'favourable' condition in assessments 2001 – 2003 and then has been recorded as 'unfavourable – recovering' condition in assessments since 2010. Aggregations of breeding birds – Woodlark *Lullula arborea...*data represents a 32% decline from the attribute target. Thus Unfavourable - recovering.

Information from APIS indicates that background levels are higher than the relevant critical loads. For locations surrounding the installation, the most relevant/conservative deposition rate would be associated with the coniferous woodland:

- The background nitrogen deposition is therefore between 31.1 – 31.5 kg N/ha/year and the most relevant/conservative critical load is 5kg N/ha/yr.
- The background acid deposition is therefore 2.3 Keq/ha/yr and the most relevant/conservative critical load (MinCLmaxN) is 0.536 Keq/ha/year.

With regards to the temperate broadleaved and coniferous forests, nutrient nitrogen deposition can cause ecological impacts in the form of soil eutrophication, excess nitrogen promotes nitrogen tolerant plant species, increasing rates of succession and altering the natural species make-up of the habitat. Tree nutrition and growth can also be impacted by eutrophication, which could lead to changes in resistance to living and non-living stress factors ('Review and revision of empirical critical loads of nitrogen for Europe' Bobbink et al 2022).

Exceeding the critical load for acid deposition can lead to low soil pH and high aluminium availability, which could cause the habitat to become unsuitable for species.

Species reliant on supporting habitats within designations can also be directly affected, for example bird species and invertebrates.

Therefore, allowing an activity which would cause damage or hinder the sites from achieving their objectives would, in our view, be in conflict with our duties under the duty under the Habitat Regulations 2017 and Wildlife and Countryside Act 1981.

3.1.4 Assessment based on revised ammonia modelling

The new ammonia emission factors for intensive farming were published on 29/11/2024 (Ammonia emission factors for pig and poultry screening, modelling and reporting - GOV.UK) so the Applicant modelled the baseline using both the old emission factors and the new ones.

The Applicant provided a revised Ammonia Assessment Report ('Ammonia Assessment, Land at Airfield Farm, Feltwell Farm and Methwold Farm', document reference 3894-8r1 and dated 11/04/2025) in response to the second Schedule 5 notice issued on 06/03/2025. The response was reviewed by the Environment Agency, with the audit focussing on modelled scenarios one (baseline with old emission factors), scenario two (baseline with new emission factors) and scenario five (proposal with new emission factors and no abatement). Although there are differences in the numerical values, the Environment Agency agrees with the conclusions of the Ammonia Assessment Report and the Applicant's results can be used in the determination.

As covered above in section 3.1.2 ("Proposed ammonia mitigation measures"), no independent certification of performance for usage with broilers was provided for the acid scrubber system selected and so the AQMAU audit focussed on the baseline scenario and the proposed scenario with no acid scrubbers. The baseline scenario used in the ammonia modelling was based on the site's maximum permitted stocking levels. The permitted maximum stocking levels are not representative of actual conditions, as the site has been operating at lower stocking levels for several years. This actual stocking level baseline has not been assessed, see section 4.1 for further details.

The remainder of this section of this decision document will focus on the predicted impacts of the proposed scenario (scenario five within the Ammonia Assessment Report) on the designated sites.

The Process Contributions ("PC"), meaning the impact from the proposed activity taken in isolation, were compared against the critical levels and critical loads (the environmental quality standards) for the designated sites.

APIS (accessed July 2025) does not state a critical level for ammonia for Breckland SPA and does state that the features are not sensitive to it, so we

have assessed against the critical loads provided for nitrogen deposition and acid deposition only.

The Applicant's report found that predicted PCs for ammonia for Breckland Forest SSSI were below the critical level, but above the higher threshold of 50% at one receptor and above the lower threshold of 20% at two receptors. The relevant results are shown in table 3 below. This has not been assessed further as exceedances above the relevant critical loads were predicted for nitrogen deposition and acid deposition, see section 4.1 for further details.

Table 3: Predicted impact of ammonia at Breckland Forest SSSI – provided by the Applicant as shown in table 62 'Maximum Predicted Annual Mean NH3 PCs – SSSIs' of the Ammonia Assessment Report.

Receptor	Designated site	Critical level (CLe)	Predicted Annual Mean NH3 PC (µg/m3)	PC as Proportion of CLe (%)
E17	Breckland Forest SSSI	3	1.7095	56.98
E20			0.8459	28.20
E21			1.0274	34.25

The outcomes from the Applicant's report found that exceedances above the relevant critical loads were predicted at Breckland SPA and Breckland Forest SSSI for nitrogen deposition and acid deposition, and the relevant results are replicated in the tables below.

Table 4: Predicted impact of nitrogen deposition at Breckland SPA and Breckland Forest SSSI – provided by the Applicant as shown in table 63 'Maximum Predicted Annual Nitrogen Deposition PCs - European Designations and table 64 'Maximum Predicted Annual Nitrogen Deposition PCs – SSSIs' of the Ammonia Assessment Report.

Receptor	Designated site	Critical load (CLo)	Predicted Annual Nitrogen Deposition PC (kgN/ha/yr)	PC as Proportion of CLo (%)
E17	Breckland SPA	5	13.3344	266.69
E20			6.5977	131.95
E21			8.0136	160.27
E17	Breckland Forest SSSI	5	8.8896	177.79
E21			5.3424	106.85

Table 5: Predicted impact of acid deposition at Breckland SPA and Breckland Forest SSSI – provided by the Applicant as shown in table 65 'Maximum Predicted Annual Acid Deposition PCs - European Designations' and table 66 'Maximum Predicted Annual Acid Deposition PCs – SSSIs' of the Ammonia Assessment Report.

Receptor	Designated site	Critical load (CLo)	Predicted Annual Acid Deposition PC (keq/ha/yr)	PC as Proportion of CLo (%)
E17	Breckland SPA	0.536	0.9488	177.01
E21			0.5702	106.38
E17	Breckland Forest SSSI	0.536	0.6325	118.01

It is noted that the same grid reference and critical load was used for the SPA and SSSI for the receptor points above, however, the Ammonia Assessment Report shows a difference in the predicted PCs and PCs as a % of the critical load due to the deposition velocity applied in the modelling.

As shown in Table 4, using the critical load of 5 kgN/ha/year for nitrogen deposition, the predicted PCs are over 100% at receptors within Breckland SPA and Breckland Forest SSSI. The highest impacted receptor for Breckland SPA is 'E17' where the predicted PC is 266.69% of the critical load of 5 kgN/ha/year. The highest impacted receptor for Breckland Forest SSSI is 'E17' where the predicted PC is 177.79% of the critical load of 5 kgN/ha/year.

Table 5 shows that using the critical load of 0.536 keq/ha/yr for acid deposition, the predicted PCs are over 100% at receptors within Breckland SPA and Breckland Forest SSSI. The highest impacted receptor for Breckland SPA is 'E17' where the predicted PC is 177.01% of the critical load of 5 kgN/ha/year. The highest impacted receptor for Breckland Forest SSSI is 'E17' where the predicted PC is 118.01% of the critical load of 5 kgN/ha/year.

APIS indicates that Breckland SPA and Breckland Forest SSSI are currently subject to background nitrogen deposition and acid deposition above the critical loads. Although the background levels of pollution differ spatially over the sites, the background already exceeds the relevant/conservative critical loads at the locations where significant effects (contribution from the proposed permission is >100% of the critical load) are predicted to occur from this proposed permission.

Impacts from air emissions >100% of the environmental standards are potentially damaging to the receiving environmental receptors in accordance with the 'Review and revision of empirical critical loads of nitrogen for Europe' (Bobbink et al 2022). The addition of nitrogen deposition and acid deposition at >100% of the critical loads from the proposed Installation would therefore act to prevent the restoration of background levels to below the relevant critical loads. We are therefore unable to conclude no adverse effect to the designated features of the SPA, and unable to conclude 'not likely to damage' the SSSI.

The draft Habitats Regulations Assessment ("HRA") and Appendix 4 were sent to Natural England for consultation on 30/07/2025 and their response was received on 13/08/2025. In view of the European site's conservation objectives, Natural England concurred with the reasoning and the conclusions of the HRA for Breckland SPA, that the proposals are not directly connected with or necessary to the conservation management of the SPA, and that it is not possible to conclude no adverse effect on the integrity of the interest features for which the site has been designated.

On 21/08/2025, the final HRA and Appendix 4 documents were sent to Natural England for their records.

3.1.5 BAT Conclusions and additional measures review

The Best Available Techniques (BAT) Reference Document ("BREF") for the Intensive Rearing of Poultry or Pigs ("IRPP") was published on 21 February 2017. There is now a separate BAT Conclusions document which sets out the standards that permitted farms have to meet.

The BAT Conclusions document is available via the following link:
http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017D0302&from=EN

There are 34 BAT Conclusion measures in total within the BAT conclusion document dated 21 February 2017.

BAT 30 – Ammonia emissions from pig houses:
The Applicant has proposed to comply with BAT 30 through the implementation of the following techniques:

- 30a ii) increase the frequency of manure removal to external storage.
- 30a8, straw flow system (in case of a solid concrete floor).

The Applicant has also reduced ammonia impacts for the pigs via usage of reduced crude protein in the feed. The average crude protein content is 15%, a reduction of 3% from the average of 18% that the standard emission factor is based on, meaning a reduction of 20% from the standard emission factor of 1.888 to 1.51 kg NH_3/animal place/year, based on the fact that we can allow a 10% reduction in the emission factor for a 1% reduction of crude protein from the standard used, up to a maximum of 20% reduction in the emission factor.

BAT 32 – Ammonia emissions from houses for broilers:
The Applicant has proposed to comply with BAT 32 through the implementation of the following techniques:

- 32a, forced ventilation and a non-leaking drinking system (in case of solid floor with deep litter).
- 32b, forced drying system of litter using indoor air (in case of solid floor with deep litter).

Within the IED BAT is defined as "*'best available techniques' means the most effective and advanced stage in the development of activities and their methods*

of operation which indicates the practical suitability of particular techniques for providing the basis for emission limit values and other permit conditions designed to prevent and, where that is not practicable, to reduce emissions and the impact on the environment as a whole:

a) *'techniques' includes both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned;*
b) *'available techniques' means those developed on a scale which allows implementation in the relevant industrial sector, under economically and technically viable conditions, taking into consideration the costs and advantages, whether or not the techniques are used or produced inside the Member State in question, as long as they are reasonably accessible to the operator;*
c) *'best' means most effective in achieving a high general level of protection of the environment as a whole."*

Article 18 of the IED, specifically within Directive 2010/75/EU, pertains to environmental quality standards and stricter emission limit values Article 18 IED. It mandates: "*where an environmental quality standard requires stricter conditions than those achievable by the use of the best available techniques, additional measures shall be included in the permit, without prejudice to other measures which may be taken to comply with environmental quality standards*." This applies to our determinations due paragraph 5(k) of Schedule 7 of the Environmental Permitting Regulations.

As covered above in Section 3.1.2, the Applicant had the opportunity via a Schedule 5 notice dated 18/12/2024 to review and add additional measures to minimise ammonia impacts for the proposal. The only measures we have been able to validate as an acceptable ammonia mitigation measure with defined % mitigation reduction, is the crude protein reduction linked to pig emissions as discussed above.

Overall, the usage of acid scrubbers was proposed for the broiler houses only. However, as mentioned previously, no independent certification of performance for usage with broilers has been provided for the acid scrubber system selected, and therefore we have not been able to include this measure as an accepted operating technique for the proposed Installation or in the associated ammonia impact assessment.

In addition, BAT 30c also confirms that acid scrubbers can be utilised on pig farms, but the Applicant did not include this option in their response to the Schedule 5 notice (issued on 18/12/2024).

There are other such measures which could have been applied to minimise ammonia impacts, for example further optimisation of stack heights for the broiler poultry house roof fan extraction ventilation emissions.

Based on information provided to us by the Applicant and the predicted ammonia emissions from the proposed Installation, we do not agree that the Applicant's proposed techniques with regards to ammonia emissions have met

the criteria of applying additional measures beyond what would be typically considered BAT. This is linked to the proposal impacts on specific designated sites listed above exceeding the relevant critical loads Environmental Quality Standard ("EQS") for nitrogen deposition and acid deposition (as discussed in Section 3.1.4 above) and, as such, requiring stricter conditions to be applied as stated in Article 18 of IED as detailed above.

Therefore, we have concluded that the Applicant has not applied all reasonable measures to minimise the predicted ammonia impacts from the proposed Installation.

3.2 Our conclusion

The predicted PCs are >100% of the relevant critical loads for nitrogen deposition and acid deposition at Breckland SPA and Breckland Forest SSSI. The addition of nitrogen deposition and acid deposition at >100% of the critical loads from the proposed Installation would therefore act to prevent the restoration of background levels to below the relevant critical loads.

We have a duty under the Habitats Regulations 2017 to help protect, conserve and restore European sites. We have a duty under the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act ("CRoW Act")) to take reasonable steps to further the conservation and enhancement of the flora, fauna or geological or physiographical features by reason of which the site is of special scientific interest. With the information provided to date allowing this activity to proceed would run contrary to these duties.

We have consulted Natural England as the primary conservation body, for their advice and have taken this into consideration during our determination.

The Applicant was given the opportunity to provide additional information and/or make changes to their proposed operations with regards to ammonia mitigation measures.

The Applicant proposed to install an acid scrubber system on the poultry houses at Methwold Farm, but no independent certification of performance for usage with broilers has been provided for the acid scrubber system selected so we have been unable to include this in our assessment.

As a result, based on information provided to us by the Applicant and the predicted ammonia emissions from the proposed Installation, we do not agree that the Applicant's proposed techniques with regards to ammonia emissions have met the criteria of applying additional measures beyond what would be typically considered BAT. This is linked to the proposal impacts on specific designated sites listed above exceeding the relevant critical loads EQS for nitrogen deposition and acid deposition and, as such, requiring stricter conditions to be applied as stated in Article 18 of IED as detailed above.

In conclusion, we consider that the predicted ammonia emissions from the proposed activity are likely to have an adverse effect on the integrity of the

designated features of Breckland SPA and likely to damage the features of interest within Breckland Forest SSSI, and we do not agree that the Applicant has applied all reasonable measures to minimise the predicted ammonia impacts from the proposed Installation.

Therefore, we have decided to refuse the Application.

Section 4: Issues still to be resolved

The Application has been refused due to predicted ammonia emissions and not meeting BAT in relation to ammonia mitigation measures and, therefore, the remainder of the Application has not been assessed.

Any other issues identified in the remainder of the Application would need to be addressed before a permit could be granted for this site in the future. These are issues where we would require further information and complete further assessment prior to the issue of a permit, rather than addressed through pre-operational conditions. As we have decided to refuse the Application it seemed unreasonable to delay the determination decision further or to put the Applicant to the expense of trying to resolve any other issues at this time.

The Application has been refused; however, the following issues remain unresolved and would also need to be addressed before a permit could be granted for this site in the future.

4.1 Ammonia emissions

As previously mentioned in Section 3, our assessment focussed on Breckland SPA and Breckland Forest SSSI which are subject to the most significant impacts for all relevant risks, and their assessment is conservative over Breckland SAC and the other SSSIs in terms of predicted impacts.

We have not continued with the assessment of the predicted ammonia emissions further; however, should we have been able to continue this would have included assessing impacts on other designated habitats sites within the relevant screening distances, and assessing the emissions reduction in terms of comparing the baseline scenario to the proposal.

In order to do this, we would have required further information from the Applicant to verify the actual operational baseline (as opposed to theoretical permitted pig number baseline) using stocking information from the last 5 years.

It is stated within Section 2.1 of the Non-Technical Summary of the Applicant's Environmental Statement for Planning (Environmental Statement Volume 3 - Non-Technical Summary, dated October 2024, prepared by Bidwells) that "… due to the limitations of the existing buildings, only around 7,500 pigs are currently housed at Feltwell and Airfield Farm." There is no mention of pigs being currently stocked at Methwold Farm within that section.

Actual current operating numbers are therefore likely to be significantly lower than the theoretical permitted numbers, making the actual operational baseline lower and hence creating a potentially higher standard for the proposal to meet, to be considered an emissions reduction relative to the actual operational baseline.

4.2 Odour pollution risk

There are sensitive receptors within 400m of the Installation boundary and there is the potential for odour pollution impact from the proposed Installation at these local receptors. The Odour Management Plan submitted by the Applicant states the closest receptor as 20m south-southeast from the boundary of Feltwell Farm. The risk of odour pollution from the proposed Installation would have needed to be satisfactorily addressed in order to issue the permit variation.

For example, one concern is regarding the pig house ventilation which featured Galebreaker curtains. This design of building ventilation is similar to that used at another permitted pig farm Installation by the same Operator.

The fundamental concern is that the ventilation does not operate in practice as theoretically designed. In brief, the concerns are that air is not fully drawn in via inlet slots along both sides of pig buildings. Instead, there is the potential for air to be drawn in at one side of the building and exit at the other side of the buildings. This air then has the potential in certain conditions to exit in the direction of the receptors and lead to elevated odour levels.

During duly making of the Application, a request was made for the Applicant to conduct an option appraisal for different housing designs on Feltwell Farm to minimise odour emissions. This RFI was sent on 03/05/2024. The response from the Applicant was received on 28/06/2024. Overall whilst multiple options were explored, the Applicant continued with the proposal with the same ventilation design.

5 Other considerations

5.1 Other legal requirements

In this section we explain how we have addressed other relevant legal requirements, to the extent that we have not addressed them elsewhere in this document.

5.1.1 The EPR 2016 and related Directives

The EPR delivers the requirements of a number of European and national laws.

5.1.1.1 Schedules 1 and 7 to the EPR 2016 – IED Directive

We address the requirements of the IED in the body of this document above and the specific requirements of Chapter IV in Annex 1 of this document.

There is one requirement not addressed above, which is that contained in Article 5(3) IED. Article 5(3) requires that "In the case of a new installation or a substantial change where Article 4 of Directive 85/337/EC (now Directive 2011/92/EU) (the EIA Directive) applies, any relevant information obtained or conclusion arrived at pursuant to articles 5, 6 and 7 of that Directive shall be examined and used for the purposes of granting the permit."

- Article 5 of EIA Directive relates to the obligation on developers to supply the information set out in Annex IV of the Directive when making an application for development consent.
- Article 6(1) requires Member States to ensure that the authorities likely to be concerned by a development by reason of their specific environmental responsibilities are consulted on the Environmental Statement and the request for development consent.
- Article 6(2)-6(6) makes provision for public consultation on applications for development consent.
- Article 7 relates to projects with transboundary effects and consequential obligations to consult with affected Member States.

The grant or refusal of development consent is a matter for the relevant local planning authority. The Environment Agency's obligation is therefore to examine and use any relevant information obtained or conclusion arrived at by the local planning authorities pursuant to those EIA Directive articles.

In determining the Application, we have considered the following documents: -

- The Environmental Statement submitted with the planning application (which also formed part of the Environmental Permit Application).
- The decision of the Borough Council of Kings Lynn & West Norfolk District Council to refuse planning permission on 08/04/2025.
- The response of the Environment Agency to the local planning authority in its role as consultee to the planning process.

The Environment Agency has also carried out its own consultation on the Environmental Permitting Application which includes the Environmental Statement submitted to the local planning authority. The results of our consultation are described elsewhere in this decision document.

5.1.1.2 Schedule 22 to the EPR 2016 – Water Framework and Groundwater Directives

To the extent that it might lead to a discharge of pollutants to groundwater (a "groundwater activity" under the EPR 2016), the Permit would have been subject to the requirements of Schedule 22, which delivers the requirements of EU Directives relating to pollution of groundwater. The Permit would have required the taking of all necessary measures to prevent the input of any hazardous substances to groundwater, and to limit the input of non-hazardous pollutants into groundwater so as to ensure such pollutants do not cause pollution, and satisfies the requirements of Schedule 22.

Had we issued a permit, it would have ensured the requirements referred to above would have been met.

5.1.1.3 Directive 2003/35/EC – The Public Participation Directive

Regulation 60 of the EPR 2016 requires the Environment Agency to prepare and publish a statement of its policies for complying with its public participation duties. We have published our public participation statement.

This Application has been consulted upon in line with this statement, as well as with our guidance RGS6 on Sites of High Public Interest, which addresses specifically extended consultation arrangements for determinations where public interest is particularly high. This satisfies the requirements of the Public Participation Directive.

A summary of the responses received to our consultations is set out in Annex 1.

5.1.2 National primary legislation

5.1.2.1 Environment Act 1995

(i) Section 4 (Pursuit of Sustainable Development)

We are required to contribute towards achieving sustainable development, as considered appropriate by Ministers and set out in guidance issued to us. The Secretary of State for Environment, Food and Rural Affairs has issued *The Environment Agency's Objectives and Contribution to Sustainable Development: Statutory Guidance (December 2002)*. This document:

> "*provides guidance to the Agency on such matters as the formulation of approaches that the Agency should take to its work, decisions about priorities for the Agency and the allocation of resources. It is not directly applicable to individual regulatory decisions of the Agency*".

The Environment Agency considers that it has pursued the objectives set out in the Government's guidance, where relevant, and that our decision takes into account of the Section 4 duty.

(ii) Section 5 (Preventing or Minimising Effects of Pollution of the Environment)

We are satisfied that our pollution control powers have been exercised for the purpose of preventing or minimising, remedying or mitigating the effects of pollution.

(iii) Section 6(1) (Conservation Duties with Regard to Water)

We have a duty to the extent we consider it desirable generally to promote the conservation and enhancement of the natural beauty and amenity of inland and coastal waters and the land associated with such waters, and the conservation of flora and fauna which are dependent on an aquatic environment.

The Environment Agency considers that our decision takes into account this duty.

(iv) Section 6(6) (Fisheries)

We have a duty to maintain, improve and develop fisheries of salmon, trout, eels, lampreys, smelt and freshwater fish.

Had we issued a permit, it would have ensured the requirements referred to above would have been met.

(v) Section 7 (General Environmental Duties)

This places a duty on us, when considering any proposal relating to our functions, to have regard amongst other things to any effect which the proposals would have on sites of archaeological, architectural, or historic interest; the economic and social well-being of local communities in rural areas; and to take into account any effect which the proposals would have on the beauty or amenity of any rural or urban area or on any such flora, fauna, features, buildings, sites or objects.

The Environment Agency considers that our decision takes into account this duty.

(vi) Section 39 (Costs and Benefits)

We have a duty to take into account the likely costs and benefits of our decisions on the applications ('costs' being defined as including costs to the environment as well as any person). This duty, however, does not affect our obligation to discharge any duties imposed upon us in other legislative provisions.

We consider our decision is reasonable and necessary to prevent adverse effect to the designated features of Breckland SPA and to prevent damage to the features of interest within the Breckland Forest SSSI.

(vii) Section 81 (National Air Quality Strategy)

We have had regard to the National Air Quality Strategy and consider that our decision complies with the Strategy.

We have also had regard to the Clean Air Strategy 2019 and consider that our decision complies with the Strategy.

We have had regard to the National Air Pollution Control Programme (set under the National Emissions Ceiling Regulations 2018) and consider that our decision complies with the Strategy.

5.1.2.2 Section 108 Deregulation Act 2015 – Growth duty

We considered our duty to have regard to the desirability of promoting economic growth set out in section 108(1) of the Deregulation Act 2015 and the guidance issued under section 110 of that Act in deciding whether to grant this permit.

Paragraph 1.3 of the statutory guidance issued by the Department of Business, Energy and Industrial Strategy in March 2017 says:

“The primary role of regulators, in delivering regulation, is to achieve the regulatory outcomes for which they are responsible. For a number of regulators, these regulatory outcomes include an explicit reference to development or growth. The growth duty establishes economic growth as a factor that all specified regulators should have regard to, alongside the delivery of the protections set out in the relevant legislation.”

We have addressed the legislative requirements and environmental standards to be set for this operation in the body of the decision document above. The guidance is clear at paragraph 1.5 that the growth duty does not legitimise non-compliance and its purpose is not to achieve or pursue economic growth at the expense of necessary protections.

We consider our decision is reasonable and necessary to prevent adverse effect to the designated features of Breckland SPA and to prevent damage to the features of interest within the Breckland Forest SSSI.

5.1.2.3 Human Rights Act 1998

We have considered potential interference with rights addressed by the European Convention on Human Rights in reaching our decision and consider that our decision is compatible with our duties under the Human Rights Act 1998. In particular, we have considered the right to life (Article 2), the right to a fair trial (Article 6), the right to respect for private and family life (Article 8) and

the right to protection of property (Article 1, First Protocol). We do not believe that Convention rights are engaged in relation to this determination.

5.1.2.4 Countryside and Rights of Way Act 2000 (CROW 2000)

Section 85 of this Act imposes a duty on Environment Agency to have regard to the purpose of conserving and enhancing the natural beauty of the Area of Outstanding Natural Beauty ("AONB"). There is no AONB which could be affected by the proposed Installation.

5.1.2.5 Wildlife and Countryside Act 1981

Under section 28G of the Wildlife and Countryside Act 1981 the Environment Agency has a duty to take reasonable steps to further the conservation and enhancement of the flora, fauna or geological or physiographical features by reason of which a site is of special scientific interest. Under section 28I the Environment Agency has a duty to consult Natural England in relation to any permit that is likely to damage SSSIs.

We assessed the Application and concluded that the proposed Installation is likely to damage the special features of the Breckland Forest SSSI. This was recorded on a CROW Appendix 4 form.

We have consulted Natural England and taken their advice into consideration.

We conclude that the predicted ammonia emissions from the proposed activity are likely to damage the features of interest within Breckland Forest SSSI. In addition to this, we believe allowing the proposal to proceed will hinder the restoration efforts at this SSSI. Therefore, we have refused the Application. Our decision takes into account our duty under the Wildlife and Countryside Act 1981.

The Wildlife and Countryside Act ("CRoW") assessment is summarised in greater detail in section 3 of this document. A copy of the full Appendix 4 Assessment can be found on the public register.

5.1.2.6 Natural Environment and Rural Communities Act 2006

Section 40 of the Natural Environment and Rural Communities Act 2006 has been amended with effect from 1 January 2023 to require consideration of the general biodiversity objective, which is to further the conservation and enhancement of biodiversity through the exercise of our functions.

The Environment Agency considers that our decision takes into account this duty.

5.1.2.7 Countryside Act 1968

Section 11 imposes a duty on the Environment Agency to exercise its functions relating to any land, having regard to the desirability of conserving the natural beauty and amenity of the countryside including wildlife.

The Environment Agency considers that our decision takes into account this duty.

5.1.2.8 National Parks and Access to the Countryside Act 1949

Section 11A and section 5(1) imposes a duty on the Environment Agency when exercising its functions in relation to land in a National Park, to have regard to the purposes of conserving and enhancing the natural beauty, wildlife and cultural heritage of the areas, and of promoting opportunities for the understanding and enjoyment of National Parks by the public.

There is no National Park which could be affected by the proposed Installation.

5.1.3 National secondary legislation

5.1.3.1 Conservation of Habitats and Species Regulations 2017

We assessed the Application in accordance with our guidance and concluded that for the purposes of the Habitats Regulations there will be likely significant effects on any European Site and undertook an Appropriate Assessment (Habitats Regulations Assessment Stage 2) of those effects.

An appropriate assessment was carried out for Breckland SPA and concluded adverse effect to the designated features of the SPA.

We have consulted Natural England and taken their advice into consideration.

We conclude that the predicted ammonia emissions from the proposed activity are likely to have an adverse effect on the integrity on the designated features of Breckland SPA. In addition to this, we believe allowing the proposal to proceed will hinder the restoration efforts at this SPA. Therefore, we have refused the Application. Our decision takes into account our duty under the Conservation of Habitats and Species Regulations 2017.

The Habitats Regulations Assessment is summarised in greater detail in section 3 of this document. A copy of the Habitats Regulations Assessment can be found on the public register.

We have also considered our general duties under Regulation 9(3) to have regard to the requirements of the Habitats Directive in the exercise of our powers and under Regulation 10 in relation to wild bird habitat to take such steps in the exercise of their functions as they consider appropriate so far as lies within our powers to secure preservation, maintenance and re-establishment of a sufficient diversity and area of habitat for wild birds.

5.1.3.2 Water Environment (Water Framework Directive) Regulations 2017

Consideration has been given to whether any additional requirements should be imposed in terms of the Environment Agency's duty under regulation 3 to secure compliance with the requirements of the Water Framework Directive, Groundwater Directive and the EQS Directive through, amongst other things, environmental permits, and its obligation in regulation 33 to have regard to the river basin management plan (RBMP) approved under regulation 31 and any supplementary plans prepared under regulation 32.

Had we issued a permit, it would have ensured the requirements referred to above would have been met.

5.1.4 Other relevant legal requirements

5.1.4.1 Duty to Involve

Section 23 of the Local Democracy, Economic Development and Construction Act 2009 require us where we consider it appropriate to take such steps as we consider appropriate to secure the involvement of interested persons in the exercise of our functions by providing them with information, consulting them or involving them in any other way. Section 24 requires us to have regard to any Secretary of State guidance as to how we should do that.

The way in which the Environment Agency has consulted with the public and other interested parties is set out in section 1.3 of this document.. Our public consultation duties are also set out in the EP Regulations, and our statutory Public Participation Statement, which implement the requirements of the Public Participation Directive. In addition to meeting our consultation responsibilities, we have also taken account of our guidance in Environment Agency Guidance Note RGS6.

Annexes

Annex 1: Consultation responses

A) Advertising and consultation on the Application

The Application has been advertised and consulted upon in accordance with the Environment Agency's Public Participation Statement. The way in which this has been carried out along with the results of our consultation and how we have taken consultation responses into account in reaching our draft decision is summarised in this Annex. Copies of consultation responses have been placed on the Environment Agency public register.

The Application was advertised on the Environment Agency website from 15/10/2024 – 19/11/2024 (inclusive) and in the Eastern Daily Press on 15/10/2024. The Application was made available to view at the Environment Public Register.

The following organisations were consulted: -

- Local Authority – Environmental Health
- Director of Public Health
- UK Health and Safety Agency
- Health and Safety Executive

1) Consultation responses from Statutory and Non-Statutory Bodies

Response received from
UK Health Security Agency (UKHSA) on 31/10/2024
Brief summary of issues raised
The main emissions of potential public health significance are emissions to air of bioaerosols, dust including particulate matter, and ammonia. The applicant has appropriate mitigation and management measures in place for emissions to water, and nuisance aspects. There is also an appropriate accident management plan and complaints procedure. The applicant has carried out a bioaerosol assessment for all permitted areas. In addition, there are appropriate mitigation and management measures in place for dust including particulate matter, bioaerosol and exhaust emissions, such that the residual impact from these emissions is unlikely to cause harm to human health. Recommendations: The applicant has conducted ammonia modelling, but not included outputs and states that the proposed changes will lead to a reduction in ammonia levels for all ecological receptors, but not included an assessment for public health impacts. Noting that there are large changes proposed for

site layout, animals and numbers thereof, and residential receptors within 100m of both the pig and poultry farms, and that the applicant has not provided full modelling outputs we ask that the Environment Agency verifies that the modelling is robust, and outputs do not correspond to significant ammonia / odour impacts for residential receptors. It is assumed by UKHSA that the installation will comply in all respects with the requirements of the permit, including the application of Best Available Techniques (BAT). This should ensure that emissions present a low risk to human health.
Summary of actions taken or show how this has been covered
The Application has been refused due to predicted ammonia emissions from the proposed Installation. No other actions required as the Application has been refused.

Response received from
Borough Council of King's Lynn & West Norfolk - Environmental Quality and Community Safety & Neighbourhood Nuisance Teams on 18/11/2024
Brief summary of issues raised
• Site Condition Report (SCR) – The information provided is generally acceptable to establish current baseline for land contamination. However, as further site investigation and remediation may take place as part of development, the SCR may need to be updated post development to reflect the site condition and the installation 'as built'. • Air Quality – Comments regarding the modelling of $PM_{2.5}$/PM_{10}, the consideration of proposed abatement measures, the consideration of emissions from the two diesel backup generators and the consideration of the proposed LPG heating systems for the poultry units. • Odour – Comments regarding the proposed use of Galebreaker curtains for the pig housing. Identified a number of concerns, queries and points that need further clarification regarding the Odour Management Plans, including timeframes, contingency actions, carcass management, dirty water management, odour monitoring, ventilation measures during heatwaves, slurry storage, and the complaints procedure.

• Nuisance dust – Identified a number of concerns, queries and points that need further clarification regarding the Dust and Bioaerosol Management Plans, including washout process, timeframes and contingency actions, the use of gable end fans and evaporative cooling units, monitoring process and the complaints procedure. • Noise – Comments regarding the Noise Management Plans, including lack of detail and control actions, timeframes and contingency actions, the use of gable end fans and evaporative cooling units, monitoring process and the complaints procedure. • Waste (especially slurry and manure) – Comments regarding contingency measures where issues with off-site waste removal arise. • Pests – Concerns raised over the lack of information about pest control in the information that has been submitted to date.
Summary of actions taken or show how this has been covered
No action required as the Application has been refused.

No responses were received from Director of Public Health or Health and Safety Executive.

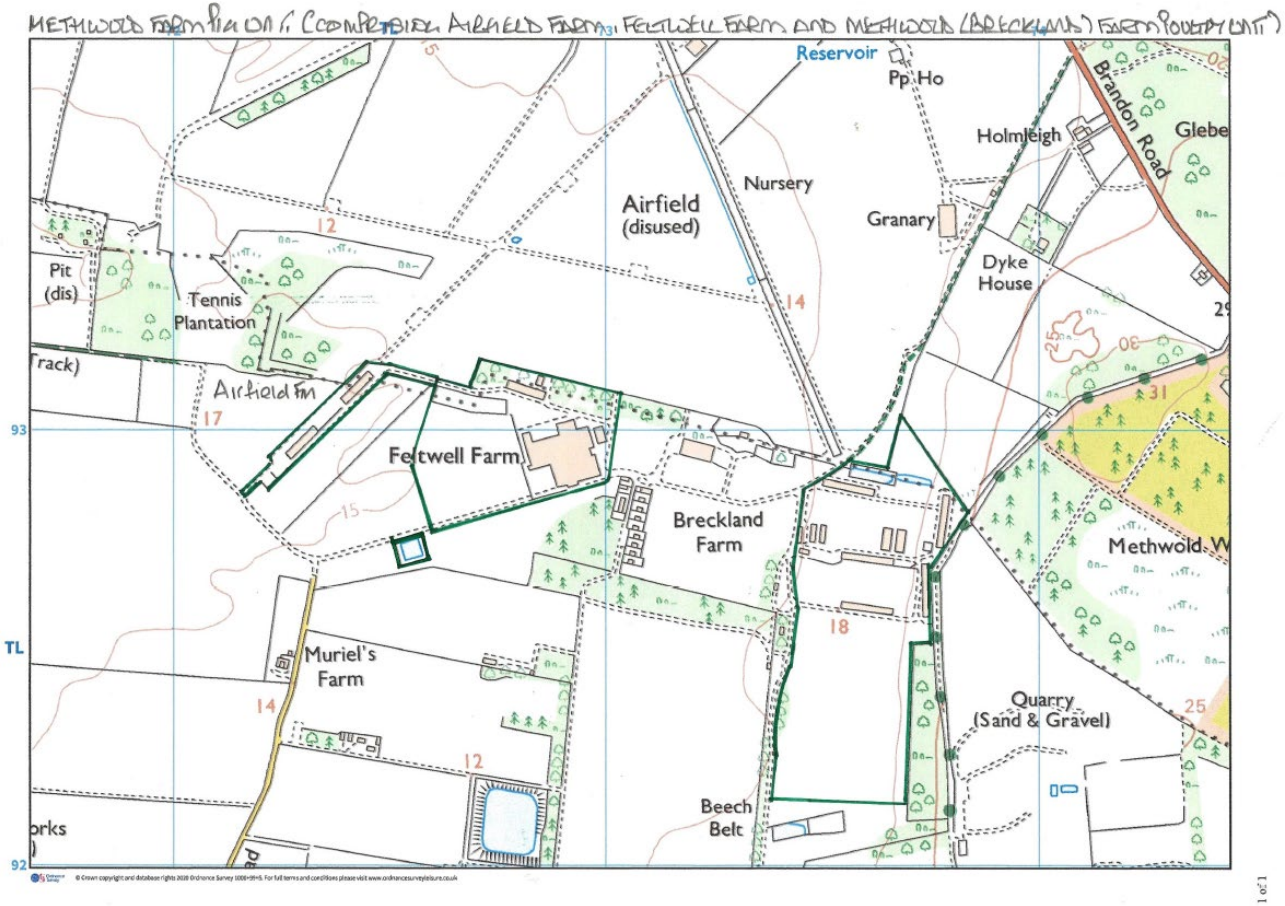
2) <u>Consultation responses from Members of the Public, Community and Other Organisations and Local MP, Councillors and Parish / Town / Community Councils</u>

As of 20/08/2025, we received 119 consultation responses; of which 91 were from individuals, 15 were from Community or Other Organisations, 10 were from Local MP, Councillors and Parish / Town / Community Councils and 3 respondents did not answer the question about if they were responding as an individual or on behalf of an organisation or group.

We have not addressed any of these consultation responses within the decision document as the Application has been refused.

Annex 2: Proposed site plans from Application

Site boundary plan



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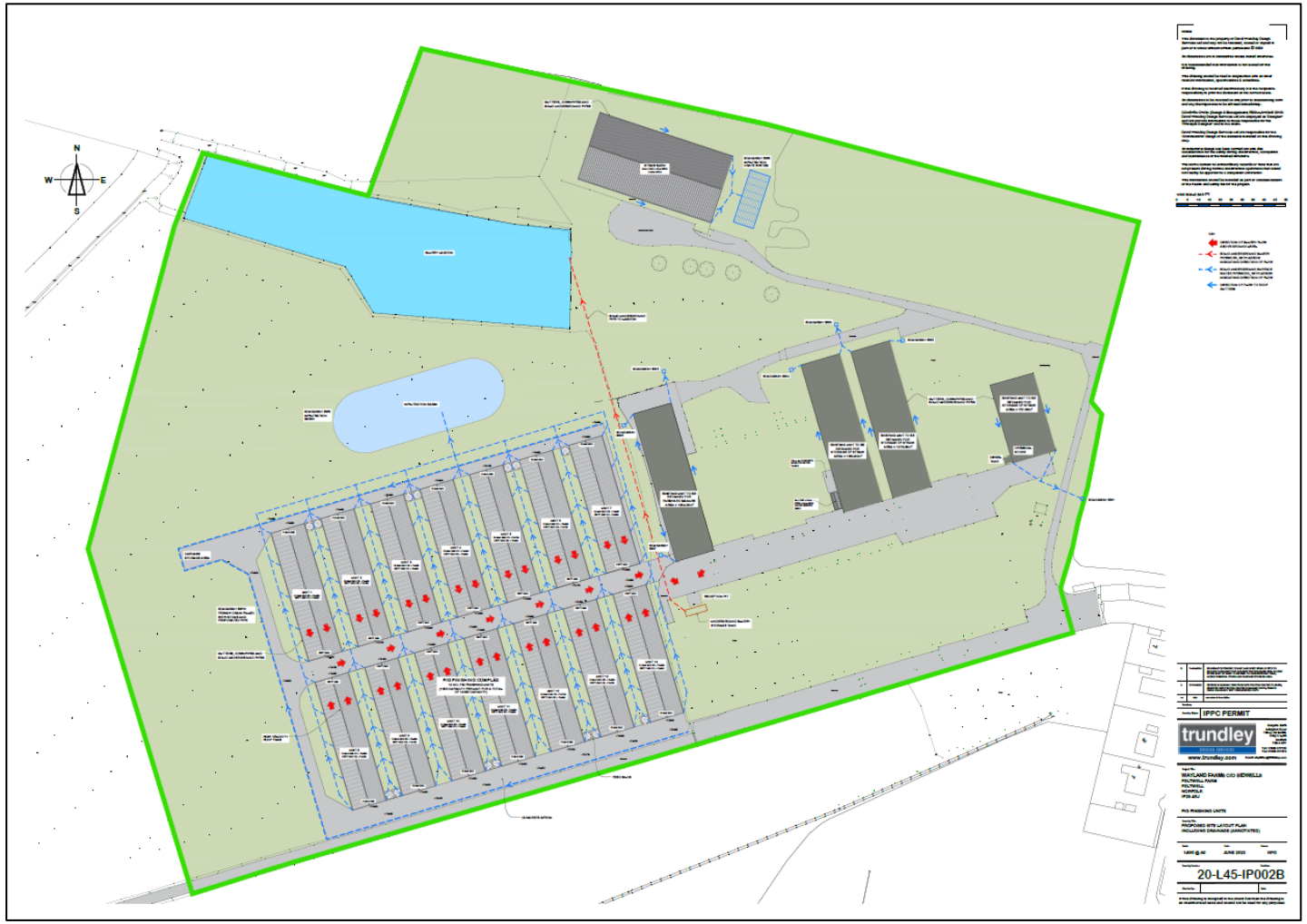
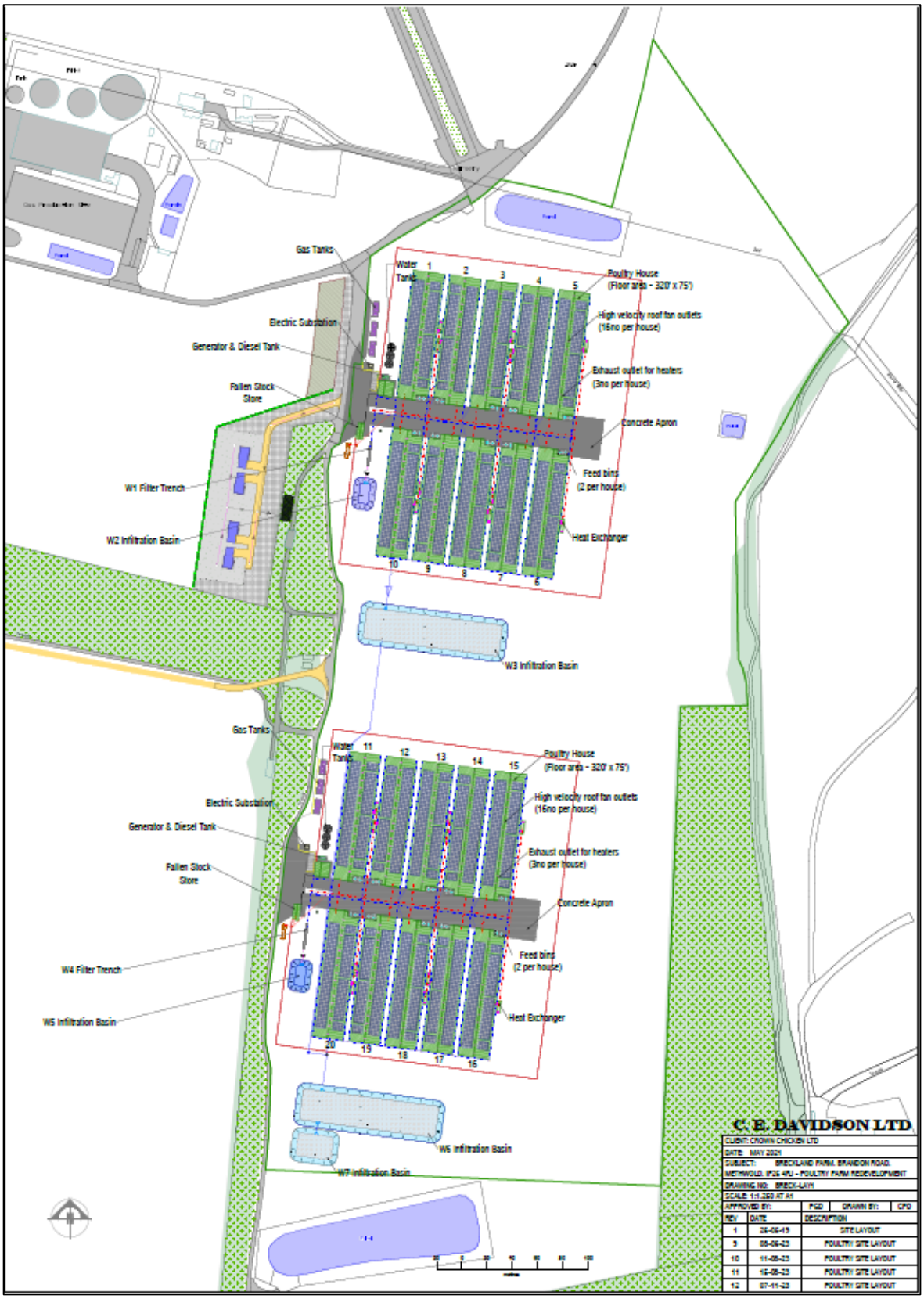
Site layout plan – Feltwell Farm



Site layout plan – Methwold Farm



Annex 3: Application timeline

Within this section the Application timeline for key dates and an overview in relation to the proposed acid scrubber mitigation and the certification document (to support any claim in reduction of ammonia emissions from air cleaning) is covered.

September 2024

- 3rd September 2024 – Duly made date
- 30th September 2024 – Advised via phone call from consultant of Applicant's proposal to install acid scrubbers at Methwold Farm on all poultry houses. Request for information (RFI) email sent requesting proposal document for the acid scrubbers, response deadline of Thursday 3rd October 2024.

October 2024

- 3rd October 2024 – RFI response received from consultant, in which it stated that certification was expected in January 2025.
- 15th October 2024 – Public consultation opened.

November 2024

- 19th November 2024 – Public consultation closed (it was extended for an additional 5 working days).

December 2024

- 18th December 2024 – Schedule 5 Notice (1) issued, covered ammonia mitigation measures. Original response deadline of 31st January 2025, subsequently extended to 3rd February 2025.

February 2025

- 3rd February 2025 – Response to Schedule 5 Notice (1) received, in which it stated that certification was expected in March 2025.
- 17th February 2025 – Follow up question to Schedule 5 Notice (1) issued, with response deadline of 24th February 2025.
- 25th February 2025 – Response to follow up question received from consultant.

March 2025

- 6th March 2025 – Schedule 5 Notice (2) issued, covered revised ammonia modelling. Response deadline of 14th April 2025.

April 2025

- 13th April 2025 – Response to Schedule 5 Notice (2) received. Ammonia Modelling Report (dated 11th April 2025) included note that certification was not yet available.
- 14th April 2025 – Follow up question to Schedule 5 Notice (2) issued, with response deadline of 9th May 2025. Requesting certification for the acid scrubbers or, if not available by that date, confirmation the applicant wishes to proceed with the application without them.

May 2025

- 2nd May 2025 – Email received from consultant with test report. Stated that it was provided ahead of approved test report expected to be issued in Q2, in a matter of weeks.
- 9th May 2025 – No certification received.

June 2025

- 11th June 2025 – Further request for follow up question to Schedule 5 Notice (2) originally issued on 14th April 2025, with response deadline of 30th June 2025. Requesting certification for the acid scrubbers. Included the following statement "Please be advised that unless the certification document is provided by 30/06/2025, then we will no longer consider the amendment to the application to include the scrubbers and will determine the application as originally submitted."
- 26th June 2025 – Interim response received from consultant suggesting ways forward for the Application.
- 30th June 2025 – Email received from consultant with letter from the DLG TestService regarding the Lavamatic acid scrubber, stating test report expected to be published in the third quarter of 2025.
  No certification received.

July 2025

- 30th July 2025 – Draft HRA and Appendix 4 documents sent to Natural England for consultation.

August 2025

- 13th August 2025 – Response received from Natural England.

Annex 4: Schedule 5 Notices

A) Schedule 5 Notice issued to the Applicant on 18/12/2024

Notice of request for more information

The Environmental Permitting (England & Wales) Regulations 2016

Wayland Farms Limited

Crane Court
Hesslewood Office Park
Ferriby Road
Hessle
HU13 0PA

Application number: EPR/XP3632QE/V003

The Environment Agency, in exercise of its powers under paragraph 4 of Part 1 of Schedule 5 of the above Regulations, requires you to provide the information detailed in the attached schedule. The information is required in order to determine your application for a permit variation duly made on 03/09/2024.

Send the information to the email addresses below by 31/01/2025. If we do not receive this information by the date specified then we may treat your application as having been withdrawn or it may be refused. If this happens you may lose your application fee.

Email address: Please respond directly to the email received and copy in both
[redacted]

Name	Date
Permitting Officer	18/12/2024

Authorised on behalf of the Environment Agency

1

Notes

These notes do not form part of this notice.

Please note that we charge £1,200 where we have to send a third or subsequent information notice in relation to the same issue. We consider this to be the first notice on the issues covered in this notice.

The notes in italics that appear after information requests in the attached schedule do not form part of the notice. The notes are intended to assist you in providing a full response.

Schedule - Response due by 31/01/2025

1. Proposed Ammonia Mitigation Measures

We ask you to consider all applicable ammonia mitigation measures for both the poultry and pig operations at Methwold and Feltwell Farms in order to present the maximum reduction in ammonia emissions from the proposal.

Further guidance for the response:

- *Please submit clear evidence to support any reduction in ammonia emission levels from ammonia mitigation measures being proposed at Feltwell and Methwold Farms. This evidence needs to be in the form of actual mass emission factor data (kg ammonia per animal place per year) and not just % reduction figures.*
- *Please review whether each of the proposed mitigation measures can be combined together to give a total aggregated reduction or whether such measures are inter-related and hence a combined reduction cannot be applied accurately.*
- *The overall target for emissions reduction, is for the mitigation measures you propose and then subsequent to this notice we approve, to lead to the installation process contributions for the proposal being such that the critical level and loads for the local habitat sites are not exceeded. This relates to all the local habitat sites that did not screen out in our original assessment dated 28/07/2022.*
- *We therefore require you to maximise evidence-based mitigation measures with this target in mind, in response to this notice.*

Note: The new ammonia pig and poultry emissions factors were published on the 29th November 2024. They are available to view on GOV.UK here: https://www.gov.uk/guidance/ammonia-emission-factors-for-pig-and-poultry-screening-modelling-and-reporting. Any reductions in ammonia emissions claimed by using ammonia mitigation measures for the proposal should use the new emission factors as a baseline (for broilers the new emission factor is 0.024kg ammonia per animal place per year and for production pigs (over 30kg live weight) on a solid floor (straw based system) the new emission factor is 1.888kg ammonia per animal place per year).

a. Provide further details on ammonia mitigation measures being proposed for the poultry operations at Methwold Farm and submit clear evidence to support any ammonia emissions reductions claimed.
   Consideration should be given to:
   - Addition of an air cleaning system *(Note: an independent certification document is required to be submitted to support any claim in reduction of ammonia emissions from air cleaning systems).*

- Heat exchangers if to be used in combination with air cleaning systems *(Note: evidence of additional improvements when used in combination with air scrubbers would be required).*
- Reductions in proposed bird numbers
- Optimisation of stack height for the high velocity roof fans/optimisation of efflux velocity
- Diet formulation and nutritional strategy (i.e. authorised feed additives)
- Litter management

b. Provide further details on ammonia mitigation measures being proposed for the pig operations at Feltwell Farm and submit clear evidence to support any ammonia emissions reductions claimed.
Consideration should be given to:
   - Addition of an air cleaning system *(Note: an independent certification document is required to be submitted to support any claim in reduction of ammonia emissions from air cleaning systems).*
   - Reductions in crude protein *(Note: the emission factors for Finishers (>30kg - slaughter) are based on a crude protein content of 18%. The maximum reduction in emission factors that we currently accept is 20% based on a crude protein reduction of 2% from the levels on which the emission factors are based on. You will need to provide evidence (e.g. diet sheets) of the actual crude protein percentage in the feed to support the reduction.)*
   - Reductions in proposed pig numbers
   - Consideration of alternative methods to provide additional cooling during the summer months whilst still maintaining pig welfare (i.e. replacing the gale breaker curtains in the housing design with an alternative method for cooling and therefore removing additional cross ventilation), thus preventing the need for extraction at these times and would also provide odour reduction mitigation.
   - Optimisation of stack height for the high velocity roof fans/optimisation of efflux velocity
   - Diet formulation and nutritional strategy (i.e. authorised feed additives)
   - Design and management of slurry storage (i.e. cover type).

Note: the deadline for submission of this information has been set as 31/01/2025, however please submit this information as soon as it is available. Once we have received this information, we will assess the acceptability of the proposed ammonia mitigation measures and the evidence to support claims for reductions in ammonia emissions.

Important: Please note that we need the opportunity to validate the evidence provided on the proposed ammonia mitigation measures and we will advise in writing which measures are acceptable based on the evidence provided. We will then instruct you to conduct the revised ammonia modelling to ensure it accurately reflects the approved ammonia mitigation measures and avoids the need for multiple modelling iterations.

B) Schedule 5 Notice issued to the Applicant on 06/03/2025

Notice of request for more information

The Environmental Permitting (England & Wales) Regulations 2016

The Company Secretary

Wayland Farms Limited
Crane Court
Hesslewood Office Park
Ferriby Road
Hessle
HU13 0PA

Application number: EPR/XP3632QE/V003

The Environment Agency, in exercise of its powers under paragraph 4 of Part 1 of Schedule 5 of the above Regulations, requires you to provide the information detailed in the attached schedule. The information is required in order to determine your application for a permit duly made on 03/09/2024.

Send the information to the email addresses below by 14/04/2025. If we do not receive this information by the date specified then we may treat your application as having been withdrawn or it may be refused. If this happens you may lose your application fee.

Email address: Please send to both [redacted]

Name	Date
Senior Permitting Officer	06/03/2025

Authorised on behalf of the Environment Agency

1

Notes

These notes do not form part of this notice.

Please note that we charge £1,200 where we have to send a third or subsequent information notice in relation to the same issue. We consider this to be the first notice on the issues covered in this notice.

The notes in italics that appear after information requests in the attached schedule do not form part of the notice. The notes are intended to assist you in providing a full response.

Schedule - Response due by 14/04/2025

1) **Galebreaker Curtains**
   a) It was stated within the further question response that cross-flow ventilation is to be prevented; can confirmation be provided that there is a guarantee the Galebreaker curtains can be controlled to ensure that there is no extraction at all at any time?
   b) Please explain if any improvements to the control of the Galebreaker curtains have been made, relative to the operation on other existing farms? If there have been any such improvements, please provide a simple bullet point summary of such improvements.

2) **Revised Detailed Ammonia Modelling**

Please submit a revised detailed ammonia modelling report that takes into account any changes made to the proposal as a result of the ammonia mitigation measures approved by the Environment Agency in response to the Schedule 5 issued 18/12/2024 (response received 03/02/2025). Agreed ammonia mitigation measures are:

- Crude protein (CP) reduction for Production Pigs on Straw – reduced by 2%, therefore EF of 1.510kg NH3/animal place/yr can be agreed.
- Reduction in Broiler numbers from 870,000 to 714,000 places.
- Acid scrubbers – as the certification is not yet available, please model the following three scenarios:
  - **Scenario 1** – no acid scrubbers fitted
  - **Scenario 2** – 70% ammonia reduction provided by acid scrubbers (to meet BREF requirements)
  - **Scenario 3** – 75% ammonia reduction provided by acid scrubbers as stated in your Schedule 5 response received on 03/02/25 ((or the % reduction as shown in the certification if received prior to this Schedule 5 Notice deadline)

  Note: Linked to question 2 f) below. For scenarios 2 and 3 with scrubber abatement taken into account please ensure abatement %s listed above are applied only for time frames and specific air flows where emissions pass through the scrubbers.

In addition, the following should also be included in the revised detailed ammonia modelling report;

a) **Interim and Final Operating Scenarios:** Please include separate sections within the detailed ammonia modelling report to demonstrate ammonia emissions from the interim operating scenarios and final proposed operating scenario as confirmed in document *Proposed Scenarios – Feltwell Farm and Airfield Farm – V003* attached to the email.

   This consists of:

   - (Interim) scenario one – Production pigs in existing houses 1, 6 and 7 at Feltwell Farm and 4,874 production pigs in houses 1 and 2 at Airfield Farm. Plus, associated slurry and manure storage. No broiler farm operation at Methwold Farm under this scenario.
   - (Interim) scenario two – 4,874 production pigs in houses 1 and 2 at Airfield Farm and 7,000 production pigs in new houses 1-7 at Feltwell Farm. Plus, associated slurry and manure storage. No broiler farm operation at Methwold Farm under this scenario.
   - (Final) Scenario three – 14,000 production pigs in new houses 1-14 at Feltwell Farm and 714,000 broilers in houses 1-20 at Methwold Farm. Plus, associated slurry and manure storage. Airfield Farm destocked and no longer used for rearing livestock.

b) **New Emission Factors:** The new ammonia pig and poultry emissions factors were published on the 29th November 2024. They are available to view on GOV.UK here: Ammonia emission factors for pig and poultry screening, modelling and reporting - GOV.UK
   The detailed ammonia modelling should now take into account the new published emission factors by providing both a comparison of the existing permitted scenario (baseline) using the previous emission factors and also using the new published emission factors, against the proposed operating scenario using the new emission factors (with any agreed reduction in ammonia emissions as agreed in writing with the Environment Agency applied).
   The corresponding emission factors for the housing types and slurry / manure storage is summarised in document '*Previous Vs New Emission Factors'* attached to the email.
   Note: The baseline is required to be presented using both the previous and new emission factors in order for us to determine the lowest baseline.
   For the new emission factors – for the FSF with frequent slurry removal emission factor to be applicable, the slurry removal needs to be a minimum of once weekly via through scraping, pumping or flushing and the slurry pit depth less than 800mm, otherwise classed as FSF. See GOV.UK page for details Ammonia emission factors for pig and poultry screening, modelling and reporting - GOV.UK.

c) **Critical Loads:** Where the screening of a SSSI habitat site is fundamentally altered by using a more conservative standard than is indicated on APIS please use the

appropriate critical loads in your modelling for the SSSI. This is to prevent the need for unnecessarily analysis/assessment of the lower risk designated sites.
Note: This may mean that you need to separate out receptor points in the ammonia modelling report where there is overlap between Breckland SAC / SPA and a SSSI and assess them separately against the appropriate Critical Loads for each designation at that receptor point.

Breckland Farmland SSSI: this site overlaps with Breckland SPA. The more precautionary CLos for N Dep and Acid Dep for Breckland SPA have been used in the modelling.

	CLe / CLo Used in Ammonia Modelling	CLe / CLo advised on APIS
Ammonia ($\mu g/m^3$)	Not Sensitive	Not Sensitive
N Dep (kg N/ha/year)	CLo 5	CLo 10
Acid Dep (keq/ha/year)	CLo 0.536	CLo 4.856

Weeting Heath SSSI: this site overlaps with Breckland SAC. More precautionary CLo for Acid Dep for Breckland SAC has been used in the modelling.

	CLe / CLo Used in Ammonia Modelling	CLe / CLo advised on APIS
Ammonia ($\mu g/m^3$)	CLe 1	CLe 1
N Dep (kg N/ha/year)	CLo 5	CLo 5
Acid Dep (keq/ha/year)	CLo 0.537	CLo 4.856

Cranwich Camp SSSI: this site overlaps with Breckland SAC. More precautionary CLo for N Dep and Acid Dep for Breckland SAC has been used in the modelling.

	CLe / CLo Used in Ammonia Modelling	CLe / CLo advised on APIS
Ammonia ($\mu g/m^3$)	CLe 1	CLe 1
N Dep (kg N/ha/year)	CLo 5	CLo 10
Acid Dep (keq/ha/year)	CLo 0.537	CLo 4.856

d) **Contour Plots / Isopleths:** Please include contour plots / isopleths for Ammonia, Nitrogen Deposition and Acid Deposition showing dispersion of the pollutants across the surrounding nature conservation sites.
e) **Stage 2 Assessment:** Where process contributions remain above the thresholds, please complete a stage 2 assessment including spatially varying deposition. Please refer to the attached guidance 'AQMAU Guidance on modelling of ammonia from poultry and pig farms' for further details. This will need to be completed for both the existing and proposed scenarios so they can be compared.
f) **Revised ventilation arrangements:**
Include the revised ventilation arrangements as follows:

Galebreaker curtains:

- Following on from question 1) a), if it's not 100%, please quantify the extraction within the modelling.

High velocity ridge fans:

- Include any unabated emissions from the high velocity ridge fans being used for summer cooling in the poultry houses using relevant Met Data.

3) Ammonia Modelling Input Files

Please submit the modelling data input files to accompany the revised detailed ammonia modelling report.

4) Acid scrubbers on the poultry houses

If available, please provide the certification document to support any claim in reduction of ammonia emissions from air cleaning.

5) Gable end doors on pig houses

Please provide the following information regarding the gable end doors for both the dirty end and clean end of the houses:

a) Area of the door to be opened in m².
b) How long the doors will be opened at a time.
c) Confirm frequency of opening and point during operations.

Note: In your response (received 25/02/25) to the follow up questions sent on 17/02/25 it was stated that the gable end doors on the dirty end of the house will be opened daily and the doors on the clean end will be opened occasionally – it is assumed that this will be during clean out operations.