

Permitting decisions

Bespoke permit

The Permit Number is: EPR/HP3433YU

The Applicant / Operator is: A&C Poultry Ltd

The Installation is located at: The Poultry Site
Land North East of Frog Hall Bungalow
Naunton Road
Upton Snodsbury
Worcestershire
WR7 4NU

1. Purpose of this document

This is a decision document, which accompanies the permit.

It explains how we have considered the Applicant's Application, and why we have included specific conditions in the permit we are issuing to the Applicant. It is our record of our decision-making process, to show how we have taken into account all relevant factors in reaching our position. Unless the document explains otherwise, we have accepted the Applicant's proposals.

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. A lot of technical terms and acronyms are inevitable in a document of this nature: we have provided a glossary of acronyms near the front of the document, for ease of reference.

This decision document provides a record of the decision making process. It:

- Provides a glossary of terms used
- Details of our decision
- Details of how we reached our decision
- The Legal Framework for our decision
- Highlights key issues in the determination
- Shows how we have considered the consultation responses.

Read the permitting decisions in conjunction with the environmental permit.

2. Preliminary information and use of terms

We gave the application the reference number EPR/HP3433YU/A001. We refer to the application as “the **Application**” in this document in order to be consistent.

The number we have given to the permit is EPR/HP3433YU. We refer to the proposed permit as “the **Permit**” in this document.

The Application was duly made on 24/07/2017.

The Applicant is A&C Poultry Ltd. We refer to them as “the **Applicant**” in this document. Where we are talking about what would happen after the Permit is granted, we call A&C Poultry Ltd “the **Operator**”.

A&C Poultry Ltd’s proposed facility is located at The Poultry Site, Land North East of Frog Hall Bungalow, Naunton Road, Upton Snodsbury, Worcestershire, WR7 4NU. We refer to this as “the **Installation**” in this document.

The main features of the permit are as follows:

The Installation is operated by A&C Poultry Ltd and comprises three poultry houses, numbered one to three, for free range laying hens. The three poultry houses provide a total combined capacity of 48,000 free range laying hens. Laying hens are brought onto the farm at approximately 16 weeks old at ‘point of lay’. The laying cycle is normally 60 weeks, before the birds are then removed, the buildings cleaned down and sterilised ready for the next cycle. Including cleaning of the buildings, the cycle is usually 64 weeks.

The hens exit the houses through ‘pop-holes’ in the side of the buildings onto crushed stone verandas running along the sides. These verandas prevent packing of the ground by the birds and helps clean the birds’ claws on returning to the building from the ranging paddocks. The grassland which forms the ranging area is separated into paddocks which are used on a rotation system to allow the land to regenerate.

Ventilation for the three houses is by roof mounted high velocity ridge fans. The ventilation system is computer controlled to enable a variable rate dependent upon the age and ventilation requirements of the birds. Four gable end fans are also fitted to each house, although these are operated infrequently to maintain temperature, typically in the summer months.

Manure conveyor belts, are installed within each of the poultry buildings to collect the droppings throughout cycle, which limits the build-up of manure that needs to be removed at the end of the cycle. Manure is collected twice a week and taken off site for spreading on land owned by third parties. Dirty water from washing out the poultry houses is channelled into underground collection tanks close to the houses to await export off site. During normal operation (excluding times of clean out) rainwater run-off is routed through an enclosed underground drainage system to the attenuation system (a covered tank and pond). A Hydro-brake located in the attenuation tank controls the flow into the pond, which ultimately discharges into Piddle Brook.

The land around the site is predominantly agricultural and relatively flat. The site gently slopes downhill towards the north-east. Feed is stored on the installation in sealed food bins. Mortalities are collected daily and stored in a secure, vermin proof freezer container on site for removal under the National Fallen Stock Scheme. At the end of the cycle the houses are depopulated, washed and disinfected ready for the next cycle.

A fenced off wetland area downslope of the larger free range poultry ranging areas will be created, to prevent or minimise potentially contaminated runoff from these ranging areas entering Piddle Brook.

There are no Special Area of Conservation (SAC), Special Protection Area (SPA) or Ramsar sites within 5km of the installation. There are nine Sites of Special Scientific Interest (SSSI) within 5km of the installation, and 12 Local Wildlife Sites (LWS) and two Ancient Woodland sites within 2km. An assessment of the impact of emissions has been carried out and the installation is considered to have no adverse effect on the nature conservation sites.

The permitted activities are as follows:

The Installation is subject to the Environmental Permitting (England and Wales) Regulations 2016 (EPR) because it carries out an activity listed in Part 2 of Schedule 1 namely:

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

The IED definition of “poultry” includes:

“...fowl, turkeys, guinea fowl, ducks, geese, quails, pigeons, pheasants and partridges reared or kept in captivity for breeding

We have reviewed the permit for this installation against the revised BAT Conclusions in the Intensive Farming BAT Conclusions document dated February 2017. The permit conditions and schedules ensure the compliance of this installation with this BAT Conclusions document.

3. Glossary of acronyms used in this document

(Please note that this glossary is standard for our decision documents and therefore not all these acronyms are necessarily used in this document.)

APHA	Animal and Plant Health Agency
APIS	Air Pollution Information System website (www.apis.ac.uk/)
AW	Ancient woodland
BAT	Best Available Technique(s)
BAT-AEL	BAT Associated Emission Level
DD	Decision Document
ELV	Emission Limit Value
EMS	Environmental Management System
EPR	Environmental Permitting (England and Wales) Regulations 2016 (SI 2016 No. 1154) as amended
FSA	Food Standards Agency
IED	Industrial Emissions Directive (2010/75/EU)
LLFA	Lead Local Flood Authority
PC	Process Contribution
PEC	Predicted Environmental Concentration
PHE	Public Health England
PPS	Public Participation Statement
PR	Public Register
SAC	Special Area of Conservation
SGN	Sector Guidance Note
SHPI(s)	Site(s) of High Public Interest
SPA(s)	Special Protection Area(s)
SSSI(s)	Site(s) of Special Scientific Interest
TGN	Technical Guidance Note

4. Our decision

We have decided to grant the Permit to the Applicant. This will allow them to operate the Installation, subject to the conditions within the Permit.

We consider that, in reaching this decision, we have taken into account all relevant considerations and legal requirements and that the permit will ensure that a high level of protection is provided for the environment and human health.

This Application is to operate an installation which is subject principally to the IED.

The Permit contains many conditions taken from our standard Environmental Permit template including the relevant Annexes. We developed these conditions in consultation with industry, having regard to the legal requirements of the EPR and other relevant legislation. This document does not therefore include an explanation for these standard conditions. Where they are included in the permit, we have considered the Application and accepted the details are sufficient and satisfactory to make the standard condition appropriate. This document does, however, provide an explanation of our use of “tailor-made” or installation-specific conditions, or where our Permit template provides two or more options.

5. How we reached our decision

5.1 Receipt of Application

The Application was duly made on 24/07/2017. 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: see below.

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.

5.2 Consultation on the Application

We carried out consultation on the Application in accordance with the EPR, our statutory PPS and our own internal Regulatory Guidance Series, Regulatory Guidance Note 6 for Determinations involving Sites of High Public Interest. 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, which are directly incorporated into the IED, which applies to the Installation and the Application. 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, our consultation already satisfies the Act's requirements.

We advertised the Application by a notice placed on our website, 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 advertisements in the Worcester News and Worcester Observer on August 16th 2017.

We made a copy of the Application and all other documents relevant to our determination (see below) available to view, online and on our Public Register at The Environment Agency, Riversmeet House, Newtown Industrial Estate, Northway Lane, Tewkesbury, Gloucestershire, GL20 8JG. Anyone wishing to see these documents could do so and arrange for copies to be made.

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

- Worcester City Council,
- Wychavon District Council,
- Worcester Regulatory Services,

- Public Health England,
- Lead Local Flood Authority (Worcestershire County Council)

These are bodies whose expertise, democratic accountability and/or local knowledge make it appropriate for us to seek their views directly. Note under our Working Together Agreement with Natural England, we only inform Natural England of the results of our assessment of the impact of the installation on designated Habitats sites.

In addition to our advertising the Application, we held a public surgery on Friday 15 September 2017 at Upton Snodsbury Village Hall between 14:00 and 19:00. Further details along with a summary of consultation comments and our response to the representations we received can be found in the [consultation section](#) of this document. We have taken all relevant representations into consideration in reaching our determination.

5.3 Requests for Further Information

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 05/12/2017, 12/03/2018 and 06/04/2018. A copy of each information notice and the Applicant's response was placed on our public register. We also asked for further information via email and received responses to these in emails dated 18/05/2018, 24/05/2018, 18/06/2018 06/07/2018, 20/7/2018 and 30/7/2018 which were also placed on our public register.

5.4 Consultation on the Draft Decision

Having carefully considered the Application and all other relevant information, we put our draft decision before the public and other interested parties in the form of a draft Permit, together with a draft explanatory document. As a result of this stage in the process, the public was provided with all the information that was relevant to our determination, including the original Application and additional information obtained subsequently.

We consulted on our draft decision from 15/08/2018 to 13/09/2018, including holding a second public surgery on Monday 3 September 2018 at Upton Snodsbury Village Hall between 13:00 and 18:30 which was attended by 22 people. A summary of consultation comments and our response to the representations we received can be found in the [consultation section](#) of this document. We considered all relevant representations we received in response to the final consultation and amended this explanatory document as appropriate to explain how we have done this.

6. The legal framework

The Permit is granted, under Regulation 13 of the EPR. The Environmental Permitting regime is a legal vehicle which delivers most of the relevant legal requirements for activities falling within its scope. The regulated facility is an *installation* and as described by the IED.

We consider that, in granting the Permit, it will ensure that the operation of the Installation complies with all relevant legal requirements and that a high level of protection will be delivered for the environment and human health.

We explain how we have addressed specific statutory requirements more fully in the rest of this document.

7. Key issues of the decision

7.1 IED

The Environmental Permitting (England and Wales) Regulations 2016 (EPR) came into force on 1 January 2017. These Regulations transpose the requirements of the Industrial Emissions Directive (IED).

The installation will be regulated under the EPR. These regulations include the requirements of relevant EU Directives, notably, the IED. The main conditions in a permit such as this are based on the requirements of the IED. The aim of the IED is to prevent or, where that is not practicable, to reduce emissions to air, water and land and prevent the generation of waste, in order to achieve a high level of protection of the environment taken as a whole. IED achieves this aim by setting operational conditions, technical requirements and emission limit values to meet the requirements set out in Articles 11 and 18 of the IED. These requirements include the application of BAT. The assessment of BAT for this installation is detailed in section 7.2 below.

7.2 New Intensive Rearing of Poultry or Pigs BAT Conclusions document

'Best available techniques' (BAT) means the available techniques which are the best for preventing or minimising emissions and impacts on the environment. 'Techniques' include both the technology used and the way the installation is designed, built, maintained, operated and decommissioned. The European Commission produces best available technique reference documents or BREF notes. They contain 'best available techniques' (BAT) for installations such as this.

The Best Available Techniques (BAT) Reference Document (BREF) for the Intensive Rearing of poultry or pigs (IRPP) was published on the 21st February 2017. There is also a separate BAT Conclusions document which will set out the standards that permitted farms will have to meet. The BAT Conclusions document is as per the following link

<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017D0302&from=EN>

BAT conclusions review and General Operating Techniques

There are 33 BAT conclusion measures in total within the BAT conclusion document dated 21st February 2017.

The Applicant has confirmed their compliance with all BAT Conditions in their Schedule 5 responses and document titled 'Appendix 11 – BAT Confirmation' received on 11/04/2018. It is an offence to make a false or misleading statement to a schedule 5 response and we have also reviewed the operating techniques they have submitted and found them to follow BAT, consequently we are satisfied that the Operator will comply with the relevant BAT conclusions.

The following is a more detailed review of the key measures the Operator has specifically confirmed they will comply with:

BAT measure	Compliance measure
BAT 3 - Nutritional management Nitrogen excretion	BAT-AEL for laying hens is 0.8kg N/animal place/year. This limit is included within Table S3.3 Process monitoring, as referenced by condition 3.5.1 in the permit.
BAT 4 Nutritional management Phosphorous excretion	BAT-AEL for laying hens is 0.45kg P ₂ O ₅ /animal place/year. This limit is included within Table S3.3 Process monitoring, as referenced by condition 3.5.1 in the permit.

BAT measure	Compliance measure
BAT 24 Monitoring of emissions and process parameters - Total nitrogen and phosphorous excretion	Table S3.3 Process monitoring, as referenced by condition 3.5.1 in the permit, requires the operator to undertake relevant monitoring that complies with these BAT conclusions.
BAT 25 Monitoring of emissions and process parameters - Ammonia emissions	The operator has confirmed that the method they will use to monitor for BAT 24 is estimation using manure analysis for total nitrogen and total phosphorus content. To monitor for BAT 25 the operator will use estimation by using a mass balance based on the excretion and the total nitrogen present at each manure management stage. Both of these monitoring techniques are compliant with BAT.
BAT 26 Monitoring of emissions and process parameters - Odour emissions	Daily checks of odour and on farm monitoring of conditions. The installation has an Odour Management Plan and further details are in Section 7.4.
BAT 27 Monitoring of emissions and process parameters -Dust emissions	Table S3.3 Process monitoring, as referenced by condition 3.5.1 in the permit, requires the operator to undertake relevant monitoring that complies with these BAT conclusions.
BAT 31 Ammonia emissions from poultry houses with non-caged Laying hens	BAT-AEL for laying hens is 0.13kgN/animal place/year. This limit is included within Table S3.3 Process monitoring, as referenced by condition 3.5.1 in the permit.

We have included requirements for reporting:

- ammonia
- nitrogen
- phosphorus.
- dust

within the permit to the frequencies specified, via permit condition 4.2.2 and table S4.2.

We have reviewed the techniques used by the operator and compared these with the relevant guidance notes (in particular the BAT conclusions document and Sector Guidance Note EPR6.09) and we consider them to represent appropriate techniques for the facility. The operating techniques that the Applicant must use are specified in table S1.2 in the environmental permit.

7.3 Groundwater and soil monitoring

As a result of the requirements of the IED, all permits are now required to contain a condition relating to protection of soil, groundwater and groundwater monitoring (see permit condition 3.1.3). However, the Environment Agency's H5 Guidance states **that it is only necessary for the operator to take samples** of soil or groundwater and measure levels of contamination where there is evidence that there is, or could be existing contamination and:

- The environmental risk assessment has identified that the same contaminants are a particular hazard; or
- The environmental risk assessment has identified that the same contaminants are a hazard and the risk assessment has identified a possible pathway to land or groundwater.

H5 Guidance further states that it is **not essential for the Operator** to take samples of soil or groundwater and measure levels of contamination where:

- The environmental risk assessment identifies no hazards to land or groundwater; or
- Where the environmental risk assessment identifies only limited hazards to land and groundwater and there is no reason to believe that there could be historic contamination by those substances that present the hazard; or
- Where the environmental risk assessment identifies hazards to land and groundwater but there is evidence that there is no historic contamination by those substances that pose the hazard.

The Applicant has provided a description of the condition of the site, which we consider is satisfactory. The decision was taken in accordance with our H5 guidance on site condition reports.

The site condition report (SCR) from the Applicant (dated 04/01/2017) demonstrates that there are no significant hazards or likely pathways to land or groundwater and no historic contamination sources on site that may present a significant risk. Therefore, on the basis of the assessment presented in the SCR the Environment Agency accepts that no baseline reference data needs to be provided for the site soil and groundwater conditions as part of application EPR/HP3433YU/A001.

At the definitive cessation of activities, the Operator has to satisfy us that the necessary measures have been taken so that the site ceases to pose a risk to soil or groundwater. To do this, the Operator will apply to us for surrender of the permit, which we will not grant unless and until we are satisfied that these requirements have been met. In this case, as no baseline data will be available, we will assume that the site was not polluted before the start of operations and so base the surrender assessment on this, i.e. that the site must remain uncontaminated.

7.4 Odour

Intensive farming is by its nature a potentially odorous activity. This is recognised in our 'How to Comply with your Environmental Permit for Intensive Farming' EPR 6.09 guidance (http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/297084/geho0110brsb-e-e.pdf).

Condition 3.3 of the environmental permit reads as follows:

"Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour."

Under section 3.3 of the guidance an Odour Management Plan (OMP) is required to be approved before any permit is issued, if as is the case here, sensitive receptors (sensitive receptors in this instance excludes properties associated with the farm) are within 400m of the Installation boundary. An OMP should prevent, or where that is not practicable, minimise the risk of pollution from odour emissions.

The odour risk assessment for the Installation provided with the Application lists key potential risks of odour pollution beyond the Installation boundary. These activities are as follows:

- Poultry house ventilation fan outlets
- Carcase storage
- Carcase disposal
- Manure removal
- Washing operations
- Feed delivery and storage
- House clean out
- Dirty water management.

7.4.1 Odour Modelling Review

We do not request odour modelling from intensive agriculture applications unless it is being used to check the efficacy of specific abatement techniques. In general then, if odour modelling assessments are submitted in support of an EPR intensive agriculture application, we will not review it in detail but focus on establishing whether odour management techniques represent Best Available Techniques.” In this case modelling was submitted, and whilst we did not identify any major concerns with it, we did not rely on it and based our decision on our review of the OMP.

7.4.2 OMP Review

The initial OMP, Appendix 9 of the Application provided was considered to be unsatisfactory as it failed to take into consideration various aspects detailing the preventative measures that would be taken to minimise odour generated by the facility, identify who would be responsible for monitoring their effectiveness and mitigation measures to be put in place. We asked the Applicant to submit a revised OMP via a Schedule 5 Notice. The revised OMP, submitted on 31/01/2018 was also deemed to be insufficient and a further revised OMP was requested. The second revised OMP was submitted on 19/04/2018 and incorporated into the permit as an operating technique in table S1.2.

We have assessed the revised submitted OMP and H1 risk assessment for odour and fugitive emissions and conclude that the Applicant has followed the guidance set out in H1 appendix H4 Odour Management – how to comply and EPR 6.09 Appendix 4 ‘Odour management at intensive livestock installations’. We are satisfied that all sources and receptors have been identified, and that the proposed mitigation measures are BAT and would prevent, and where not practicable minimise, emissions of odour from the site. We are satisfied that emissions will not cause significant pollution of the environment or harm to human health.

7.5 Noise

Intensive farming by its nature involves activities that have the potential to cause noise pollution. This is recognised in our ‘How to Comply with your Environmental Permit for Intensive Farming’ our guidance. Under section 3.4 of this guidance a Noise Management Plan (NMP) must be approved before a permit is issued, if there are sensitive receptors within 400m of the Installation boundary.

Condition 3.4 of the Permit reads as follows:

“Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan, to prevent or where that is not practicable to minimise the noise and vibration.”

There are sensitive receptors within 400m of the Installation boundary. The Operator has provided a NMP as part of the Application supporting documentation, and further details are provided in section 7.5.2 below.

The noise risk assessment for the Installation provided with the Application lists key potential risks of noise pollution beyond the Installation boundary. These activities are as follows: the operation of the ridge and gable end extractor fans on the poultry house, and the loading/unloading operations using diesel forklifts. We have assessed the NMP, the H1 risk assessment for noise and NOISE IMPACT ASSESSMENT, Acoustic Report M1324/R02a, dated 9th December 2016 (Matrix Acoustics Design Consultants), see section 7.5.1 below for details.

7.5.1 Noise modelling review

The application contained a noise impact assessment which identified local noise-sensitive receptors, potential sources of noise at the proposed plant and noise attenuation measures. Measurements were taken of the prevailing ambient noise levels to produce a baseline noise survey and an assessment was carried out in

accordance with BS4142:2014 to compare the predicted plant rating noise levels with the established background levels.

The assessment predicted, a worst case impact in the daytime of +8 dB at Dwelling B (Frog Hall Bungalow) under their 100% ridge and gable end extractor fans operational scenario and at the night-time a difference of +16 dB at Dwelling A (Frog Hall Farm) and Dwelling B (Frog Hall Bungalow) under their transport vehicle operations. In accordance with BS4142:2014 a difference of greater than +5dB above background can indicate an adverse impact depending on context.

We have audited the assessment, conducting our own check modelling with sensitivity testing. We agree with the BS4142 rating levels predicted by the Applicant. The Applicant maintains that that the worst case scenario is unlikely as the gable end fans will only operate when the weather is very hot and forklift operations only take place at the start and end of the 60 week cycle. We accept that the daytime and night-time 'worst case' scenarios are unlikely and this is an important consideration in the context and significance of impacts following BS4142 assessment methods. Taking the context of the operations, i.e. it is unlikely that the gable end fans will operate at night, and absolute sound levels into account, we agree with the Applicant that the impacts are unlikely to be adverse due to the Applicant's implementation of the NMP.

7.5.2 NMP Review

The NMP is an overarching document designed to detail the operating techniques to ensure appropriate methods are in place to prevent or where that is not practicable, to minimise the risk of unacceptable noise pollution beyond the Installation boundary. The permit requires compliance with the measures set out in the NMP. (The NMP is a stated operating technique and captured through condition 2.3 and Table S1.2 of the environmental permit).

The initial NMP, Appendix 10 of the Application provided was considered to be unsatisfactory as it failed to take into consideration the results of the noise impact assessment detailing the preventative measures that would be taken to minimise noise generated by the facility and identify who would be responsible for monitoring their effectiveness. We asked the Applicant to submit a revised NMP via a Schedule 5 Notice. The revised NMP, submitted on 31/01/2018 was also deemed to be insufficient and a further revised NMP was requested. The second revised NMP, submitted on 19/04/2018 was deemed to be in-line with our guidance EPR 6.09 and has been incorporated into the permit in table S1.2. We are satisfied that the NMP as revised, contains appropriate measures to prevent or where that is not practicable to minimise the risk of unacceptable noise pollution beyond the Installation boundary.

7.6 Dust and Bioaerosols

The use of BAT and good practice will prevent and where that is not practicable minimise emissions. There are measures included within the Permit (the 'Fugitive Emissions' conditions) to provide a level of protection, specifically condition 2.3.1 requires the installation to be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, and condition 1.1.1 requires the operator to manage and operate the Installation in accordance with a management system that identifies and minimises the risk of pollution. Condition 3.2.1 'Emissions of substances not controlled by an emission limit' is included in the Permit. This is used in conjunction with condition 3.2.2 which states that in the event of fugitive emissions causing pollution following commissioning of the Installation, the Operator is required to undertake a review of site activities, provide an emissions management plan and to undertake any mitigation recommended as part of that report, once agreed in writing with the Environment Agency.

There are no sensitive receptors within 100m of the Installation boundary (excluding the access road), the nearest sensitive receptor (the nearest point of their assumed property boundary) is approximately 300m to the south-east of the installation boundary.

Guidance on our website concludes that Applicants need to produce and submit a dust and bioaerosol risk assessment with their applications only if there are relevant sensitive receptors within 100m of any part of their Installation boundary. This is based on the best available evidence that bioaerosol emissions from intensive farming sites return to background levels after 100m, and if bioaerosol levels have returned to background levels we can assume the process is not placing an additional health burden. Some receptors e.g. the farmhouse or farm worker's houses are not considered to be 'sensitive' in this context as they are directly linked to the activities at the Installation and are therefore covered by Occupational Health Exposure and Health and Safety at Work legislation. Details can be found via the link below:

www.gov.uk/guidance/intensive-farming-risk-assessment-for-your-environmental-permit#air-emissions-dust-and-bioaerosols.

As there are no receptors within 100m of the Installation, the Applicant was not required to submit a dust and bioaerosol risk assessment.

However the Applicant has carried out a fugitive dust risk assessment, and identified a number of measures to be put in place at the Installation to minimise and effectively manage potential dust emissions. These include:

- Sealed feed delivery systems and use of pelleted feed;
- Feed spillages cleared immediately;
- Use of a cyclone dust collector;
- Use of sheeted vehicles.

We have assessed the measures against sector guidance note EPR 6.09 and in particular the BAT Conclusions document, and we are satisfied the techniques proposed are BAT and that the emissions will not cause significant pollution of the environment or harm to human health. As discussed above, permit condition 2.3.1 requires the installation to be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2 which includes these measures.

7.7 Aerial Ammonia Emissions

7.7.1 Screening Overview

This screening assessment has considered any Special Areas of Conservation (SAC), Special Protection Areas (SPA) and Ramsar sites within 5km; any Sites of Special Scientific Interest (SSSI) within 5km and also any National Nature Reserves (NNR), Local Nature Reserves (LNR), ancient woodlands and local wildlife sites (LWS) within 2km of the Installation.

We have used the Environment Agency's Ammonia Screening Tool (AST v4.5) to assess the impact of the proposal at those sites identified within the above distance criteria.

The ammonia screening tool version 4.5 provides distance limits, from the emission source, where emissions from the Installation will have a potential impact on the conservation site. Beyond this distance the PC screens out as insignificant.

Where the ammonia screening tool predicts that emissions of ammonia or ammonia deposition (nutrient nitrogen or acid) will be <Y% (see Table 1.0 below) of the relevant Critical Level or Critical Load, the proposal screens out of the requirement for an ammonia assessment.

An in-combination assessment:

- is needed for SAC's, SPA's, Ramsar's and SSSI's when the process contribution (PC) as a % of the Cle of ammonia and Clo of N deposition and acidity is in-between Y & Z% as shown in the table below.

Table 1.0

Site Type	X(km)	Y(%)	Z(%)
SAC/SPA/Ramsar	5	4	20
SSSI	5	20	50
NNR, LNR, LWS, ancient woodland	2	100	100

- is not needed for LWS's, LNR's, NNR's or AW's.

Detailed modelling is required where:

- emissions of ammonia or ammonia deposition (nutrient nitrogen or acid) are in excess of Z% of the relevant Critical Level (ammonia) or Critical Load (nutrient nitrogen or acid) at any particular designated site from the Installation alone;
- there is the potential for an in-combination effect with existing farms at a SAC, SPA, Ramsar or SSSI if combined emissions are > Z% of the critical level or critical load;
- the original permit for the installation required an Improvement Condition to reduce ammonia emissions;
- your proposal is within 250m of a nature conservation site.

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For SAC, SPA, and Ramsar a permit may be issued where the ammonia screening tool or detailed modelling demonstrates that either:

- the process contribution is <4% Critical Level and Critical Load; or
- the process contribution plus contributions from other relevant intensive farms is <20% Critical Level and Critical Load; or
- the process contribution plus contributions from other relevant intensive farms plus background is **below** the relevant Critical Level or Critical Load.

For SSSI a permit may be issued where the ammonia screening tool or detailed modelling demonstrates that either:

- the process contribution is <20% Critical Level and Critical Load; or
- the process contribution plus contributions from other relevant intensive farms is <50% Critical Level or Critical Load;

- the process contribution plus contributions from other relevant intensive farms plus background is **below** the relevant Critical Level or Critical Load.

For NNR, LNR, LWS and ancient woodland a permit may be issued where the ammonia screening tool or detailed modelling demonstrates that:

- the process contribution is <100% Critical Level or Critical Load

7.7.2 Site specific screening

There are no SAC, SPA or Ramsar sites located within 5km of the installation. There are nine SSSIs located within 5km of the installation. There are also twelve Local Wildlife Sites (LWS) and two Ancient Woodlands (AW) within 2km of the installation.

All of the above sites screen out (using a worst case scenario Cle 1ug/m³) due to distance (i.e. they are all beyond a specific modelled and calculated distance from the installation, where the PC is insignificant), with the exception of Naunton Court Meadows SSSI which is designated for biological interests, (MG5 – *Cynosurus cristatus* – *Centaurea nigra* grassland) and Piddle and Whitsun Brooks LWS, primary features being open flowing water and a European Eel migratory route. Naunton Court SSSI, however, does screen out using a Critical Level of 3ug/m³ (which is suitable, as this SSSI has no record of lichens or bryophytes which would require a modelling assessment of using a tighter Critical Level of 1ug/m³ and is designated for *Centraurea nigra* grassland of which a Critical Level of 3ug/m³ is suitable).

Piddle and Whitsun Brooks

Piddle and Whitsun Brooks, although <250m from the installation (which would normally trigger the need for detailed ammonia modelling if appropriate, due to the uncertainties associated with predictions of ammonia near to the source), are primarily designated for their aquatic interests (open flowing waters) so the aerial impact from ammonia, nitrogen deposition and acidification is considered to be low. Piddle and Whitsun Brooks (LWS) have no record of lower plants being present along the bank sides of the watercourse.

Given the nature of the habitat being flowing water and having no record of lower plants being present along the bank sides, the significance of aerial ammonia, acidification and deposition is less than for standing water and the risk of environmental impact from aerial ammonia and nitrogen deposition pollution is insignificant - the application of a CLe for atmospheric ammonia (and therefore a CLo for nitrogen deposition and acidification) is not considered appropriate in this instance. Although the PC at all conservation sites within the screening distance of the Installation has been shown as insignificant via an impact assessment alone (i.e. <Y% for SAC, SPA, Ramsar & SSSI as described above), due to commitments made during the public engagement, we have gone beyond our normal procedures and carried out a further in-combination assessment for this site for all conservation sites.

The activities will have no likely significant effect on a European site, will not damage the special features of any SSSI, will not cause significant pollution at any LWS and will not cause harm to any protected species.

Please refer to Appendix 1 at the end of this document for further information on the ammonia emissions to air assessment undertaken for the statutory and non-statutory designations.

7.8 Nitrate Deposition (Nitrate Vulnerable Zone, NVZ, requirements) from poultry excrement.

In the Applicants response to our Schedule 5 Notice dated 05/12/2017 and the Hydro-logic services report, with regards to the poultry depositing faeces on the ranging paddocks they have stated that they will use the paddocks on rotation and no other fertiliser will be applied to these paddocks. The poultry will not have 24 hour access to the ranging areas. The Applicant has also confirmed, as per their other existing poultry sites, that 90% of poultry faeces is removed by the belts in the poultry sheds. Of the remaining 10%, a large proportion of the poultry faeces is deposited on the floor of the shed, where it is then removed from site along with the faeces from the belts. The Applicant has therefore stated that less than 10% of poultry manure is deposited on the paddocks, which when combined with no fertiliser application to the paddocks, and the additional measures implemented (see section 7.10 below) means it is unlikely for contaminants to be picked up and washed by rainwater into surface water features such as Piddle Brook. The Applicant further states that the nutrient rates

associated with the poultry manure would be well below the nutrient application allowance per hectare for this land parcel.

The farm is situated in a Nitrate Vulnerable Zone (NVZ) under the [Nutrient management: Nitrate Vulnerable Zones](#) guidance on the .gov.uk website and consequently the Applicant is authorised under this system to apply up to 170kg per hectare of nitrogen in livestock manure in each calendar year. This also includes manure deposited directly by livestock. We have undertaken a review and assessment of the application (included in an email dated 18/05/2018 confirming the total landholding by the Applicant) and the requirements laid out in NVZ guidance. Previous DEFRA guidance in complying with the rules for NVZs in England for 2013-2016 states that “Commonly, free range laying hens are housed for 80% to 90% of the time”, i.e. poultry spend 10% to 20% of their time outside. We have used a figure of 15%, which is mid-range of the DEFRA guidance and higher than that stated by the Applicant, for the deposition of faeces on the paddocks and using this we are satisfied that the proposals are compliant with the requirements of the current NVZ guidance. Furthermore, the Applicant has provided a commitment to comply with the requirements of the NVZ guidance, which are also enforced by the Environment Agency

7.9 Flood Risk

The Environment Agency provides advice and guidance to the local planning authority on flood risk in our consultation response to the local planning authority as part of the planning process. In regards to fluvial flood risk we look at planning regulation (National Planning Policy Framework) which considers that any agricultural land or buildings are ‘less vulnerable’ development; and that this type of development is appropriate within Flood Zone 3 and that the risk is considered low.

Flooding from surface water runoff is assessed by the LLFA, rather than by the Environment Agency, and further details can be found in section 9 “Consultation” section.

When making environmental permitting decisions, flood risk is still a relevant consideration, but generally only in so far as it is taken into account in the accident management plan and that appropriate measures are in place to prevent pollution in the event of a credible flooding incident.

The Applicant’s risk assessment includes potential hazards arising from flood water including the effect of blocked drains, burst water mains or generalised ingress of flood water to the site. Given the nature of the activities these are focused on contamination, pollution and mitigation measures including drainage diversion and pollutant containment.

The Applicant has also detailed the actions and mitigation measures to help reduce the impact of any flooding events on the Piddle Brook in the Hydro-Logic Services document submitted on 31 January 2018 in response to the Schedule 5 Notice. These actions include:

- registering to receive flood warnings and being pro-active regarding the monitoring of rainfall weather forecasts to ensure that action can be taken quickly;
- installation of an attenuation system (tank and basin) to receive runoff from the impermeable surfaces associated with the poultry units;
- a wetland area fenced off from the Piddle Brook to be created along the field boundary (see figure 2 of the Hydro-Logic Services document) to improve water quality and to prevent or minimise potentially contaminated runoff from the larger free range poultry fields and poached areas (containing poultry excrement) entering Piddle Brook;
- range areas are paddocked (using permanent and temporary fencing) to allow for rotation to maintain good grass coverage and the use of protection pens across the site to fence off areas to enable grass to rejuvenate;
- the keeping of birds within the paddocks nearest the poultry houses/away from the Piddle Brook in the event of the land being flooded or heavy rain leading to areas becoming poached;
- straw protection strip (5m wide, 10-15cm in depth) to be laid underneath the pop holes of the poultry units in the event of flood mitigation to trap a large proportion of the poultry faeces. The straw will be removed and replaced daily; and

- no use of the lower paddocks near the Piddle Brook during the winter months or during heavy periods of rain.

7.10 Piddle Brook, drainage and diffuse pollution

The pollution potential from manure deposited on free-range poultry ranges is usually limited as the majority of manure is deposited within the sheds.

The birds would not have 24 hour access to the ranging areas and typically only 10 to 20% of birds are likely to be outside at any one time as these are laying hens and not broilers reared for meat production. Birds will tend to congregate around the pop holes and therefore in these areas the surface will be crushed stone which will prevent the birds compacting the soil by trampling it (poaching). During potential flood/prolonged wet periods a straw protection strip will be installed on top of the crushed stone as an additional control measure to trap manure and will be removed off site along with the manure collected by the belts in the poultry houses and the straw replaced if required.

Manure that is deposited outside on the range will be dispersed and the use of a paddock rotation plan is also good practice in minimising the creation of poached areas and good grass coverage and regeneration that will reduce standing water and control surface runoff. There will be no other fertiliser applied to the roaming paddocks to ensure nutrient rates associated from the poultry manure remain below the acceptable allowance per hectare for the land (please also refer to 7.8 in this document).

In addition, in this situation poultry are classed as livestock by legislation, and as such the operator must adhere to and comply with the "Rules for farmers and land managers to prevent water pollution". This means that the operator must make sure they prevent livestock compacting soil (poaching) within 5m of an inland freshwater. The operator has confirmed that they will comply with this guidance. Furthermore the Applicant will install a wetland area downslope of the larger ranging areas, to improve water quality and to prevent or minimise potentially contaminated runoff from these areas (containing poultry excrement) entering Piddle Brook. Dense stands of vegetation in wetlands facilitate the adhesion of contaminants to vegetation, aerobic decomposition of nutrients and can also help stabilise settled sediment and prevent re-suspension. This goes beyond the "rules for farmers" mentioned above and so we are satisfied with the measures proposed. However, the Applicant has offered to review the operation of the wetland area. We have accepted this offer and included an Improvement Condition (IC1) in the permit for the operator to review the efficacy of the wetland areas and if it is necessary to propose improvements.

Management systems and operational methods are in place to prevent the potential for pollution from the pesticides, cleaning agents and any veterinary medicines stored on site. Furthermore, there will be agricultural fuel oil storage facilities on site. S3.2 of EPR 6.09 'How to comply with your environmental permit for intensive farming, Version 2' states that agricultural fuel oil, pesticides and veterinary medicines should be contained in an area capable of retaining any spillage. Agricultural fuel oil storage facilities must be bunded, regardless of size or age. Bunds should be impermeable and resistant to the stored materials; have no outlet and drain to a blind collection point; have pipework routed within bunded areas with no penetration of contained surfaces; be designed to catch leaks from tanks or fittings; have a capacity greater than 110% of the largest tank or 25% of the total tankage, whichever is larger; be looked at regularly and any contents removed after checking for contamination; be fitted with a high level probe and an alarm, where not frequently inspected; have tanker connection points within the bund where possible (otherwise adequate containment should be provided at the connection point); be regularly inspected for their condition. The Applicant has confirmed that they will bund the agricultural fuel oil storage facilities to meet the requirements of the Water Resources (Control of Pollution) (Silage, Slurry and Agricultural Fuel Oil) Regulations 2010 (SSAFO Regulations) and comply with the requirements of S3.2 of EPR 6.09 'How to Comply with your environmental permit for intensive farming', version 2. The Applicant has also confirmed that any chemical storage on site will be capable of retaining spillage, resistant to fire, frost free and secure. There is no drainage from this storage. This is fully in accordance with the appropriate measures in S3.2 of EPR 6.09 'How to Comply with your environmental permit for intensive farming', version 2.

The Applicant has also addressed how they will manage and respond to any fuel spills and chemical spills that may occur by accident at the Installation within their emergency plan document, as well as having wash-down

procedures and contingency plans for dirty washwater disposal. The OMP and the routine maintenance schedule state that the dirty water tanks will be monitored during the wash down of the poultry sheds to maintain an appropriate freeboard.

During normal operation (excluding times of clean out) rainwater run-off is routed through an enclosed system with conveyance channels and pipes running along the sides of the buildings to the attenuation system (a covered tank and pond). The outflow from the attenuation system will be controlled by a Hydro-brake, located in the attenuation tank, which ultimately outlets to Piddle Brook.

Rainwater runoff from the impermeable section of the access track will be managed by an infiltration trench located 2m above groundwater level, with a depth of 1m (CIRIA C753, 2015, pg. 547, recommends that the invert level of the infiltration trench should be located at least 1m above groundwater level), which ensures a separation of at least 1m has been achieved between groundwater level and the infiltration SuDS feature.

As per our guidance reference SGN EPR 6.09 'How to Comply with your environmental permit for intensive farming', it is acceptable for drainage from Installations to drain uncontaminated or lightly contaminated surface waters (following interception) to an attenuation pond. The slow movement of water along the attenuation system, will encourage deposition of any solids washed off the roof and helps to remove nutrients. The operator predicts that the attenuation system will only overflow during a flooding event on average once in one hundred years.

The site is not in a groundwater source protection zone. We have considered the information provided (including the additional and revised information received within the Schedule 5 Notices) and are satisfied that the measures which will be required by the permit are BAT. Conditions within the Permit will ensure that measures are undertaken, monitored and revised if required to ensure that the activities at the Installation will not pose an unacceptable risk to ground or surface water.

7.11 Control of the facility

We are satisfied that the Applicant (now the operator) is the person who will have control over the operation of the facility after the grant of the permit. The decision was taken in accordance with our guidance on legal operator for environmental permits.

7.12 Extent of installation

The operator has provided plans which we consider are satisfactory, showing the extent of the site of the installation. A plan is included in the permit

7.13 Accident Risk Assessment:

The Applicant provided a separate Accident Risk Assessment, which we have assessed and consider it to be satisfactory.

7.14 Pest Risk Assessment:

The Applicant provided an assessment of pests in the Amenity Risk Assessment, which we have assessed and consider it to be satisfactory.

7.15 Management system

The Applicants have stated in the application documents that they will implement an Environmental Management System (EMS). A summary has been provided which meets the requirements in Sector Guidance Note EPR6.09. Under condition 1.1.1 of the permit, a written management system is required to be implemented.

There is no known reason to consider that the operator will not have the management system to enable it to comply with the permit conditions. We are satisfied that appropriate management systems and management structures will be in place at the Installation, and that sufficient resources are available to the Operator to ensure compliance with all the permit conditions.

The decision was taken in accordance with the guidance on operator competence and how to develop a management system for environmental permits.

7.16 Relevant convictions

Our Case Management System has been checked to ensure that all relevant convictions have been declared.

No relevant convictions were found. The operator satisfies the criteria in our guidance on operator competence.

7.17 Financial competence

There is no known reason to consider that the operator will not be financially able to comply with the permit conditions.

8 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.

8.1 The EPR 2016 and related Directives

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

8.1.1 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 is subject to the requirements of Schedule 22, which delivers the requirements of EU Directives relating to pollution of groundwater. The Permit will require 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.

No releases to groundwater from the Installation are permitted, other than uncontaminated or lightly contaminated surface water via the infiltration trench for the access track. The Permit also requires material storage areas to be designed and maintained to a high standard to prevent accidental releases.

8.1.2 **Nitrate Pollution Prevention Regulations 2015**

Part 3 of the Nitrate Pollution Prevention Regulations imposes annual limits on the amount of nitrogen from livestock and organic manure that may be applied or spread in a holding in a Nitrate Vulnerable Zone (NVZ).

The regulation of the Nitrate Pollution Prevention Regulations 2015 is regulated by ourselves outside of the Environmental Permitting regime. However, as discussed in section 7.8 we have assessed the impact Nitrate Deposition from this farm and have determined that it will comply with the Nitrate Pollution Prevention Regulations.

8.1.3 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 is being 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.

Our decision in this case has been reached following a programme of extended public consultation, on the original application. The way in which this has been done is set out in

Section 5.2. A summary of the responses received to our consultations and our consideration of them is set out in Section 9.

8.2 National primary legislation

8.2.1 **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 there are no additional conditions that should be included in this Permit to take account of the Section 4 duty

In respect of regulation of industrial pollution through the EPR, the Guidance refers in particular to the objective of setting permit conditions *"in a consistent and proportionate fashion based on Best Available Techniques and taking into account all relevant matters..."*. The Environment Agency considers that it has pursued the objectives set out in the Government's guidance, where relevant, and that there are no additional conditions that should be included in this Permit to take 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.

We consider that no additional or different conditions are appropriate for this Permit.

(iv) Section 6(6) (Fisheries)

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

We consider that no additional or different conditions are appropriate for this Permit.

(v) Section 7 (Pursuit of Conservation Objectives)

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 area.

We considered whether we should impose any additional or different requirements in terms of our duty to have regard to the various conservation objectives set out in Section 7, but concluded that we should not.

(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.

In so far as relevant we consider that the costs that the permit may impose on the applicant are reasonable and proportionate in terms of the benefits it provides.

(vii) Section 108 Deregulation Act 2015 – Growth duty

We have 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 guidance 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 the requirements and standards we have set in this permit are reasonable and necessary to avoid a risk of an unacceptable level of pollution. This also promotes growth amongst legitimate operators because the standards applied to the operator are consistent across businesses in this sector and have been set to achieve the required legislative standards.

(viii) 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, and that no additional or different conditions are appropriate for this Permit.

7.2.2 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.

7.2.3 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 Installation.

7.2.4 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 Installation will not damage the special features of any SSSI. This was recorded on a CROW Appendix 4 form.

The CROW assessment is summarised in Appendix 2 of this document. A copy of the full Appendix 4 Assessment can be found on the public register.

7.2.5 Natural Environment and Rural Communities Act 2006

Section 40 of this Act requires us to have regard, so far as is consistent with the proper exercise of our functions, to the purpose of conserving biodiversity. We have done so and consider that no different or additional conditions in the Permit are required.

7.3 National secondary legislation

7.3.1 Water Environment (Water Framework Directive) Regulations 2003

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 and the EQS Directive through (inter alia) environmental permits, and its obligation in regulation 17 to have regard to the river basin management plan (RBMP) approved under regulation 14 and any supplementary plans prepared under regulation 16. However, it is felt that existing conditions are sufficient in this regard and no other appropriate requirements have been identified.

We are satisfied that granting this application with the conditions proposed would not cause the current status of the water body to deteriorate, and that it will not compromise the ability of this water body to achieve good status by 2027.

7.5 Other relevant legal requirements

7.5.1 Duty to Involve

S23 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. S24 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 5.2 of this document. The way in which we have taken account of the representations we have received is set out in section 9. 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.

9 Consultation

The following summarises the responses to consultation with other organisations, our notice on GOV.UK for the public, newspaper advertising and the way in which we have considered these in the determination process.

A) Consultation on the Application

Responses from organisations listed in the consultation section

Response received from
Development Services, Worcester City Council
Brief summary of issues raised
The consultee stated “[...] the City Council as the Local Planning Authority does not have any comments to make in respect of the proposals.”
Summary of actions taken or show how this has been covered
No Action required

Response received from
Wychavon District Council
Brief summary of issues raised
The consultee stated “Planning permission for the erection of three poultry units for free range egg production, six feed bins, alterations to existing site entrance, new access track and associated development on the site (reference W/16/03009/PN) was refused by the council on 11 April 2016. An appeal has been lodged against the refusal (APP/H1840/A/13/2207644).”
Since the initial consultation, the Applicant has successfully appealed the aforementioned refusal. The appeal was granted on 9 th November 2017.
Summary of actions taken or show how this has been covered
No action required

Response received from
Technical Services, Worcester Regulatory Services
Brief summary of issues raised
The consultee stated “[...] there do not appear to be any nuisance related complaints about this site nor any Environmental Health related enforcement action.”
Summary of actions taken or show how this has been covered
No action required

Response received from
Public Health England
Brief summary of issues raised
The consultee stated “We recommend that any Environmental Permit issued for this site should contain conditions to ensure that the following potential emissions do not impact upon public health: noise, dust and odour.
Based solely on the information contained in the application provided, PHE has no significant concerns regarding risk to health of the local population from this proposed facility, providing that the Applicant takes all appropriate measures to prevent or control pollution, in accordance with the relevant sector technical

guidance or industry best practice.”

Summary of actions taken or show how this has been covered

Permit conditions 3.4.1, for noise emissions; 3.2.1, for emissions of substances not controlled by emission limits (which includes dust); and 3.3.1, for odour emissions have been set within the permit to ensure that these emissions do not cause pollution outside of the site.

We have assessed the application against relevant sector guidance and in particular the recently published BAT Conclusions document (see [section 7.2](#)) we are satisfied the techniques proposed are BAT and that the activities will not cause significant pollution of the environment or harm to human health.

[Section 7.4](#) explains how we have assessed and are satisfied with the measures set out in their odour management plan.

[Section 7.5](#) explains how we have assessed the NMP and the H1 risk assessment for noise and we are satisfied that all sources and receptors have been identified, and that the proposed mitigation measures will minimise the risk of noise pollution

[Section 7.6](#) provides details of the measures used to keep dust and bio-aerosols under control. As there are no receptors within 100m of the Installation, the Applicant was not required to submit a dust and bio aerosol risk assessment. However, we are satisfied that the proposed dust prevention and mitigation measures are satisfactory.

Response received from

Lead Local Flood Authority (Worcestershire County Council)

Brief summary of issues raised

The Lead Local Flood Authority has raised concerns that the agreed amendments to the flood risk assessment/surface water drainage strategy, which were agreed at the planning application stage, have not been updated within the permit application documents.

Summary of actions taken or show how this has been covered

The Applicant has confirmed that the Hydro-Logic Services document (Document reference: L0027 dated 24 January 2018) submitted on 31 January 2018 in response to the Schedule 5 Notice overrides all previously submitted permit application documents relating to Flood Risk. This document was submitted as part of the discharge of planning conditions 10 and 11. The details within the Hydro-Logic Services document were accepted and approved in relation to flood risk by Wychavon District Council on 14 March 2018 and consequently conditions 10 and 11 discharged, in part. The Applicant will need to comply with the requirements of their planning permission in addition to complying with any permit.

Representations from local MP, councillors and parish councils

Response received from
Nigel Huddleston MP, Member of Parliament for Mid Worcestershire
Brief summary of issues raised
Mr Huddleston raised objections to the size of the sheds proposed and commented that they would not be in-keeping with the rest of the landscape. This appeared to be echoing the comments made in a letter from a member of the public that was included in Mr Huddleston's response.
Summary of actions taken or show how this has been covered
The Environment Agency is responsible for ensuring that the activities at the Installation do not have an unacceptable impact on the environment or human health. The size and visual impact of the sheds, is a matter for consideration during the planning process and does not form part of the Environmental Permit decision.

Response received from
Cllr. Linda Robinson, District Councillor for the Upton Snodsbury Ward & Leader of Wychavon District Council
Brief summary of issues raised
Cllr. Robinson raised concerns regarding the pollution of the Piddle Brook from surface waste from the poultry, the in-combination effect of this and the nearby Kinsey Hearne site and the impact of light pollution. Concern was also raised that the application covers land not included within the recent planning application, and some is in a different flood zone and is closer to nearby SSSI's.
Summary of actions taken or show how this has been covered
We can only assess the Application as submitted and assess whether it includes all the operational areas that are part of the Installation. The Applicant has provided plans of the Installation which we consider are satisfactory, showing the extent of the site of the facility. The LLFA and Wychavon District Council have been consulted as part of the permit determination. The visual impact of light disturbance is a matter considered by the planning authority. The Applicant has detailed the actions and mitigation measures to prevent wastes from leaving the installation site area in an uncontrolled/unauthorised manner and potentially then entering the Piddle Brook in the Hydro-Logic Services document (Document reference: L0027 dated 24 January 2018) submitted on 1 February 2018 in response to our Schedule 5 notice. Relevant measure in this report have been incorporated in to the permit via condition 2.3.1 and table S1.2. We are satisfied that the measures required by the permit will prevent significant pollution of the environment and any damage to the special features of any SSSI

Response received from
Flyford Flavell, Grafton Flyford and North Piddle Parish Council
Brief summary of issues raised
Flyford Flavell, Grafton Flyford and North Piddle Parish Council opposed to the development and raised the following issues: Odour <ol style="list-style-type: none">1. Odour risk assessment – request that assessment of “not significant” be verified2. Will there be manure storage on site3. Issues raised about the offsite disposal of manure, where it will go and how it will be controlled and the manure management plan.4. BAT should be used to minimise odour – how do we ensure solutions are not limited by cost, and how will the EA ensure most effective mitigation of odour.5. Odour models do not reflect the adverse effect odour has on local residents.6. How will monitoring be undertaken

7. How will complaints be dealt with

Noise

8. Appendix 10, Table 2 states “if necessary fans closest to the receptors will not be operated or operated at a lower capacity. What does this mean?
9. Concerns raised about the use of “may” when referring to options for acoustic barriers and other measures such as electric fork lift trucks. Why wait until there are complaints, can they be implemented from the outset.
10. Ensure that a plan to mitigate noise is imposed in permit conditions.

Pollution of the Piddle Brook and local environment

11. The location of the attenuation ponds appear to encroach on Flood Zone 2 and there appears to be no allowance made for the expected extension in flood zones over time. When flooding occurs pollutants including ammonia, nitrates, pathogens, antibiotics, hormones and heavy metals will be washed into local sensitive environments
12. Ensure a plan is in place to ensure all polluting factors are controlled.

Compound impact (in-combination effect)

13. Will determination take into account compound impact of neighbouring farm.

Summary of actions taken or show how this has been covered

Odour is discussed in detail in section [section 7.4](#), and should be read in conjunction with our comments below regarding odour:

1. We have assessed the odour risk assessment and pollution control measures described in the Application and we are satisfied that that the control measures are BAT for this installation and the operations are unlikely to cause significant pollution. Odour key issues, management, control at source, monitoring, complaint handling, accident and contingency procedures are included in the sites odour management plan which will be implemented on site. Condition 3.3.1 of the permit will ensure compliance with this plan as agreed. Please see [section 7.4](#) for details.

2. The Applicant has confirmed that there will be no manure heaps within the installation. Manure will remain on the conveyor belt within the poultry sheds, and will then be loaded directly onto trailers and taken off site.

3. Manure will be removed off site and none will be spread within the Installation, consequently no manure management plan is required for this Installation.

As the Code of Good Agricultural Practice (CoGAP) states, the most economic and environmentally friendly way of dealing with livestock manures (slurry and solid manure) and dirty water will usually be to apply them to agricultural land at appropriate rates for the benefit of soil and the crop. The spreading of this wash water and poultry litter to land is a normal process. In Nitrate Vulnerable Zones (NVZ), offsite operators must comply with the rules that restrict the quantity of livestock manure and organic manures that can be applied and times of the year when certain types may not be applied, and set minimum storage requirements for some livestock manures.

4. As stated above, we have assessed the pollution control measures described in the Application and we are satisfied that that the control measures are BAT for this Installation.

5. We have not based our decision on the odour model

6. Monitoring firstly will be to ensure the site is complying with the operating techniques with relation to the potential sources of odour emissions detailed in the OMP. Secondly the operator will also carry out pro-active daily routine monitoring of odours to help detect any off-site odours and identify the cause or causes if present. This monitoring will be based on static “sniffing” at various locations around the site following a standard format which is an accepted technique for odour monitoring.

Further sniff testing and observations will be conducted periodically around the various operations on site to identify potential odour risks and sources.

7. Section 14 of OMP details how complaints to the Operator will be handled. In the event of an odour complaint an Odour Complaint Form will be filled in and appropriate action will be taken to remedy the problem should the complaint be validated. Auditable records of any investigations carried out will be kept, with incidents analysed to stop them happening again. The site manager will have ultimate responsibility for investigating complaints and resolving any site issues.

The Environment Agency is able to receive complaints through the incident hotline, by letter and directly through to the office. Our recommended method is via the incident hotline for efficiency (we

advise that complainants should not use e-mail to report an incident, as this could delay our response). The Environment Agency commits to responding to incidents. We try to respond where we can and undertake proactive monitoring if it is deemed necessary in order to substantiate the nature, origin and extent of the odour complaint.

The Environment Agency monitors the Operator's complaints records as part of compliance and routine incident response commitments.

Noise is discussed in detail in section section 7.5, and should be read in conjunction with our comments below regarding noise:

8. The ventilation of the 3 poultry buildings will be by using roof mounted high velocity ridge fans and gable end fans on each poultry building. These fans are computer controlled, and so the use of the fans nearest to the sensitive receptors will be minimised, or they will be at least run at a lower speed to minimise noise impacts. This will be subject to ensuring the welfare of the chickens.
9. As explained in section 7.5 of this document, we agree with Applicant that the impacts of noise are unlikely to be adverse due to the implementation of the NMP. The extra techniques suggested are therefore not expected to be required.
10. The operator's NMP is incorporated into the permit via condition 2.3.1 and table S1.2

Pollution of the Piddle Brook and local environment

11. The location of the attenuation pond is not within our remit, but has been approved through the planning process.

The attenuation pond will only receive clean rainwater or lightly contaminated rainwater runoff, and so flooding of this pond is unlikely to cause pollution.

12. Specific risks such as odour are covered by specific plans, there is also an overarching management system and a site specific Accident Management Plan. We have assessed all the documents and we are satisfied that the pollution control measures described are sufficient and the operations are unlikely to cause significant pollution.

Compounding impact

13. The Environment Agency considers the in-combination effects for other nearby EPR intensive farms only if the predicted ammonia emissions from the Installation for nature conservation sites exceed relevant thresholds. Emissions from this Installation do not exceed the relevant thresholds (Please see section 7.7 'Ammonia' section of key issues for more information) and so an assessment of the in combination (or cumulative) effect is not necessary.

However, given the concerns raised by the council and members of the public, we did carry out in combination assessment with the impacts of ammonia emissions from the neighbouring farm and found that, as expected, the impacts will not cause significant harm to the environment.

Response received from
Naunton Beauchamp Parish Council
Brief summary of issues raised
A representative from Naunton Beauchamp Parish Council raised a number of concerns regarding the following topics: <ol style="list-style-type: none">1. Odour – Concerns raised over the impact of odour from the sheds, and also how will waste from the free range chickens in the fields be dealt with?2. Impacts on surface water and groundwater – waste from chickens in the fields will be absorbed into the ground and seep into the brook, this will include antibiotics given to the chickens.3. Concerned that any spillage from the site, as well as surface runoff and subsurface flow, whether this is after cleaning out, flooding inside the sheds, or run off from the hard standing, would run into the brook. When flooding occurs, contaminants (BOD, ammonia, pathogens, trace elements of arsenic,

copper, selenium and zinc, antibiotics, hormones, pesticides) will be washed into the brook, deposit on flood plains adjacent to Naunton Beauchamp and may cause underlying groundwater to become unfit for human consumption.

4. Air pollution – Concerns raised over the impacts on human health of ammonia, hydrogen sulphide, other odour causing compounds and particulates. Global warming issues due to CO₂ and nitrous oxide emissions. Also, concern over the impact of ammonia deposition on vegetation and sensitive ecosystems
5. Waste Disposal – concerns raised over waste materials being spread on surrounding land and effects on Piddle Brook.
6. Overall environmental impact - including the impact on Otters, Bats, and crested newts located nearby.

Summary of actions taken or show how this has been covered

1. We have assessed the pollution control measures for odour prevention described in the application and we are satisfied that that the control measures are BAT for this installation and the operations are unlikely to cause significant pollution. Odour key issues, management, control at source, monitoring, complaint handling, accident and contingency procedures are included in the sites odour management plan which will be implemented on site. Condition 3.3.1 of the permit will ensure compliance with this plan as agreed.

The operators' response to Schedule 5 Notice (1) question 1m confirms that the management techniques in the Odour Management Plan will extend to the ranging fields.

The pollution potential from manure on free-range poultry ranges is usually limited as the majority of manure is collected within the sheds and removed by the belts. The birds would not have 24 hour access to the ranging areas and typically only 10 to 20% of birds are likely to be outside at any one time, although this will vary. Manure that is deposited outside on the range will be reasonably well dispersed and the intended use of a paddock rotation plan is also good practice.

Odour is further discussed in [section 7.4](#).

2. Waste deposition from the chickens is discussed in [section 7.8](#) and [7.10](#). The Applicant has confirmed that no antibiotics will be used as all hens are looked after in accordance with Lion Code standards which prohibits the use of antibiotics. We are satisfied that the activities at the Installation will not pose an unacceptable risk to ground or surface water.
3. The Applicant undertook an Accident Risk Assessment for the installation and subsequently produced a site specific Accident Management Plan. We have assessed both documents and we are satisfied that the pollution control measures described are sufficient and the operations are unlikely to cause significant pollution, including the risk from flooding.

In the event of a spillage, it will be contained and cleaned up immediately, drain inlets can be blocked off and sections of the drainage system can be closed off. Dirty water tanks for wash out water have alarmed systems, integrity testing and inspections on a monthly basis and during the cleanout of the buildings to minimise the risk of land contamination.

The proposed location of the poultry buildings and associated infrastructure places the development at low risk from all sources of flooding. It is expected that the proposed buildings will not be at risk from a fluvial flood of magnitude less than the 1:1,000 year event.

The Applicant has also detailed the actions and mitigation measures to help reduce the impact of any flooding events on the Piddle Brook in the Hydro-Logic Services document submitted on 31 January 2018 in response to the Schedule 5 Notice. These measures include registering to receive flood warnings and being pro-active regarding the monitoring of rainfall weather forecasts, to ensure that action can be taken quickly, and no use of the lower paddocks near the Piddle Brook during the winter months or during heavy periods of rain.

A covered attenuation tank has been specifically designed to manage runoff up to and including the 1:2 year+40% climate change allowance (CC) rainfall event, and an attenuation basin, designed to manage runoff up to and including the 1:100 year+40%CC rainfall event. In the event of a rainfall event greater than the 1:2 year+40%CC, the covered attenuation tank would surcharge and overflow, via the weir into the attenuation basin. As an extra precaution catch pits will be installed on the upstream end of all inflows into the attenuation system to provide additional protection to the Piddle Brook and a hydro-brake will be fitted on the outflow of the system to enable isolation of the system from the Piddle Brook in the event of an accidental spillage on site. The use of Sustainable Drainage Systems (SuDS) features such as attenuation ponds (basins) can contribute to flood risk management

by retaining water in the attenuation system that would otherwise reach a watercourse, whilst also providing benefits for water quality by encouraging deposition of solids and removal of nutrients.

4. The impact of emissions to air of ammonia are discussed in detail in [section 7.7](#), odour is discussed in [section 7.4](#), and particulates are discussed in [section 7.6](#).

The development of nitrous oxide (N₂O), is associated with the internal storage of manure; in general, their levels in housing can be considered very low when the manure is frequently removed (section 3.3.2.1, Best Available Techniques (BAT) Reference Document for the Intensive Rearing of Poultry or Pigs, 2017), as is the case for this Installation.

Hydrogen sulphide (H₂S) is generally present in very low quantities, i.e. about 1ppm (section 3.3.2.1, Best Available Techniques (BAT) Reference Document for the Intensive Rearing of Poultry or Pigs, 2017), and so is not an issue other than for odour, which is discussed in [section 7.4](#).

Global warming potential for CO₂ emissions from the Installation will be mainly as a result of energy use, and consequently energy efficiency is a consideration as part of the determination of this permit application. The operator undertook an Energy Efficiency Review for the installation and we consider the site to be in accordance with BAT. Nitrous oxide emissions are not expected from this installation.

5. Manure will be removed off site and none will be spread within the Installation, and so this is not an issue for the determination of this permit. As the Code of Good Agricultural Practice (CoGAP) states, the most economic and environmentally friendly way of dealing with livestock manures (slurry and solid manure) and dirty water will usually be to apply them to agricultural land at appropriate rates for the benefit of soil and the crop. The spreading of this wash water and poultry litter to land is a normal process. In Nitrate Vulnerable Zones (NVZ), Operators must comply with the rules that restrict the quantity of livestock manure and organic manures that can be applied and times of the year when certain types may not be applied, and set minimum storage requirements for some livestock manures. The Operator has confirmed that Manure spread on to land will be done in line with a manure management plan. When combined with a nutrient management plan, a manure management plan will help an Operator reduce the need for artificial fertilisers and reduce the risk of pollution.
6. We have assessed the impacts of emissions from this Installation with regards to the environment and have concluded that it will not cause significant pollution. See sections 7.5 to 7.10 of this document for more details.

Response received from
Upton Snodsbury Parish Council
Brief summary of issues raised
A representative from Upton Snodsbury Parish Council raised concerns regarding in the in-combination effect of this site and the nearby Kinsey Hearne site, the impact on the Piddle Brook and the impact on local wildlife.
Summary of actions taken or show how this has been covered
In-Combination effect, The Environment Agency considers the in-combination effects for other nearby EPR intensive farms only if the predicted ammonia emissions from the Installation for nature conservation sites exceed relevant thresholds. Emissions from this Installation do not exceed the relevant thresholds (Please see section 7.7 'Ammonia' section of key issues for more information) and so an assessment of the in combination (or cumulative) effect is not necessary. However, given the concerns raised by the council and members of the public, we did carry out in combination assessment with the impacts of ammonia emissions from the neighbouring Kinsey Hearne (Frogmore) farm which confirmed the impacts will not cause harm to the environment, human health or the local wildlife. The protective measures to be implemented on the installation will prevent significant pollution of the environment, or harm to human health and will also protect local wildlife.

Representations from community and other organisations

Response received from
WPAG - Wychavon Parishes Action Group
Brief summary of issues raised
<ol style="list-style-type: none"> 1. What will the compound impact with Kinsey Hearne farm be? 2. Increased flood risk due to additional concreting of land 3. Impact of feed and fuel deliveries in term of noise and hours 4. Odour from site.
Summary of actions taken or show how this has been covered
<ol style="list-style-type: none"> 1. The Environment Agency considers the in-combination effects for other nearby EPR intensive farms only if the predicted ammonia emissions from the Installation for nature conservation sites exceed relevant thresholds. Emissions from this Installation do not exceed the relevant thresholds (Please see section 7.7 'Ammonia' of the key issues for more information) and so an assessment of the in combination (or cumulative) effect is not necessary. However, given the concerns raised by the council and members of the public, we did carry out in combination assessment with the impacts of ammonia emissions from the neighbouring farm and found that, as expected, the impacts will not cause significant harm to the environment. 2. The Environment Agency provides advice and guidance to the local planning authority on flood risk in our consultation response to the local planning authority as part of the planning process. When making environmental permitting decisions, flood risk is still a relevant consideration, but generally only in so far as it is taken into account in the accident management plan and that appropriate measures are in place to prevent pollution in the event of a credible flooding incident. Although we do not assess Surface Water flood risk as part of an Environmental Permit determination, the Applicant has confirmed the installation of an attenuation basin to contain and naturally treat (by attenuation) any excess run-off. 3. Offsite environmental implications of the Application, such as increases in traffic are beyond the remit of this permit determination and cannot be taken into account. These matters are a relevant consideration for the planning authority and does not form part of the Environmental Permit decision. The potential onsite impacts of noise and odour from deliveries have been assessed, in section 7.5 and section 7.4 respectively, and we have concluded that the control measures are BAT for this installation and the operations are unlikely to cause significant pollution 4. We have assessed the pollution control measures for odour prevention described in the application and we are satisfied that that the control measures are BAT for this installation and the operations are unlikely to cause significant pollution. Odour key issues, management, control at source, monitoring, complaint handling, accident and contingency procedures are included in the sites odour management plan which will be implemented on site. Condition 3.3.1 of the permit will ensure compliance with this plan as agreed. Odour is further discussed in section 7.4.

Representations from individual members of the public.

Topic 1: Pollution in the Piddle Brook
<p>A number of respondents raised the issue of increased pollution in the Piddle Brook and the detrimental effect on the water course, particularly as the poultry roaming area within the installation boundary is known to flood and the impact on nitrate levels this would have.</p> <p>Several respondents also raised that the installation is within a Nitrate Vulnerable Zone (NVZ).</p>
Summary of actions taken or show how this has been covered
We are satisfied the mitigating measures put in place by the operator are BAT and will protect the Piddle

Brook. Please see [section 7.10](#) for details.

The Applicant's risk assessment includes potential hazards arising from flood water. The application has considered the effect of blocked drains, burst water mains or generalised ingress of flood water to the site. Given the nature of the activities these are focused on contamination and pollution and mitigation measures are described including drainage diversion and pollutant containment. Please see [section 7.9](#) for details.

Nitrate deposition and its impact on the NVZ has been assessed and found to be not an issue, please see [section 7.8](#).

Topic 2: Impact on local wildlife and habitats

A number of respondents raised concerns regarding the impact on local wildlife, including habitat loss for a number of species.

Concern regarding the impact of pest control measures on buzzards and ravens eating poisoned rodents.

Summary of actions taken or show how this has been covered

The impacts on local wildlife sites and habitats have been assessed and it is considered that emissions to air of ammonia from the Installation will not cause harm to the environment. See [section 7.7](#) for further details.

The Environment Agency assesses the impacts of emissions from an installation. The loss of habitat due to construction is covered by the planning regime and not within our remit for determining an Environmental Permit.

Pest control measures. The Applicant has stated that rat bait used will only be placed in approved bait boxes which wild birds do not have access to and the bait will be supplied and put down by a licenced contractor. There will be regular checks to dispose of any rodent carcasses (between once and two times a week).

Topic 3: Increased flood risk

A number of respondents raised concerns regarding the increased risk of flooding due to the increased impermeable area that the installation area and surrounding hard-standing would provide.

Summary of actions taken or show how this has been covered

The Environment Agency provides advice and guidance to the local planning authority on flood risk in our consultation response to the local planning authority as part of the planning process. When making environmental permitting decisions, flood risk is still a relevant consideration, but generally only in so far as it is taken into account in the accident management plan and that appropriate measures are in place to prevent pollution in the event of a credible flooding incident.

Although we do not assess Surface Water flood risk as part of an Environmental Permit determination, the Applicant has confirmed the installation of an attenuation basin to contain and naturally treat (by attenuation) any excess run-off.

Topic 4: Aesthetic beauty of area and residents quality of life

A number of respondents raised concerns regarding the impact the installation will have on the aesthetic and ambient beauty of the area. Respondents also raised general concerns over their quality of life being impacted.

Summary of actions taken or show how this has been covered

The Environment Agency is responsible for ensuring that emissions from the activities at the Installation do not have an unacceptable impact on the environment or human health.
The planning authority considers matters such as visual impact, which do not form part of our Environmental Permit determination process.

Topic 5: Impact on local business and local employment

Some respondents raised concerns regarding the impact on local business and employment.

Summary of actions taken or show how this has been covered

The Environment Agency is responsible for ensuring that emissions from the activities at the Installation do not have an unacceptable impact on the environment or human health.
The impact of emissions will not have an unacceptable impact on local business and local employment.

Topic 6: Impact on recreational activities

A number of respondents expressed concern that the installation would impact on people using the area for recreational activities, such as walking, cycling and horse riding.

Summary of actions taken or show how this has been covered

The Environment Agency is responsible for ensuring that emissions from the activities at the Installation do not have an unacceptable impact on the environment or human health.
Our assessment, as detailed in the key issues section of this document, is that emissions will not have an unacceptable impact on the environment or human health

Topic 7: Light pollution

A number of respondents raised concerns regarding the impact of light pollution from the installation.

Summary of actions taken or show how this has been covered

The planning authority considers matters such as visual impact (light disturbance). The planning inspector included, in their appeal decision, a condition requiring that details of any external lighting shall be submitted to and approved in writing by the Local Planning Authority.

Topic 8: Increased traffic

A number of respondents raised concerns regarding the impact of increased vehicle movements through the surrounding villages.

Summary of actions taken or show how this has been covered

These matters are a relevant consideration for the grant of planning permission, but does not form part of the

Environmental Permit decision.

Topic 9: In combination effect

A number of respondents expressed concerns that the site applied for is next to another large, permitted poultry farm operation. Concerns were expressed regarding the cumulative impact of emissions such as odour and general pollution of both sites.

Some respondents were concerned that approving a permit for this facility would set a precedent for future developments in the area.

Summary of actions taken or show how this has been covered

The Environment Agency considers the in-combination effects for other nearby EPR intensive farms only if the predicted ammonia emissions from the Installation for nature conservation sites exceed relevant thresholds. Emissions from this Installation do not exceed the relevant thresholds (Please see section 7.7 'Ammonia' section of key issues for more information) and so an assessment of the in combination (or cumulative) effect is not necessary.

However, given the concerns raised by members of the public, we did carry out in combination assessment with the impacts of ammonia emissions from nearby farms and found that, as expected, the impacts will not cause harm to the environment.

We have assessed the pollution control measures for odour prevention described in the application and we are satisfied that that the control measures are BAT for this installation and the operations are unlikely to cause significant pollution. Odour key issues, management, control at source, monitoring, complaint handling, accident and contingency procedures are included in the sites odour management plan which will be implemented on site. Condition 3.3.1 of the permit will ensure compliance with this plan as agreed. As odour emissions from the site will be low due to satisfactory process controls, an in combination effect with the Frogmore Poultry unit is unlikely.

The Frogmore poultry unit does not have free range chickens, and so there will be no in-combination effects from faecal deposits to ranging paddocks.

Odour is further discussed in [section 7.4](#).

We have to determine each application on its own merits. The issuing of this permit does not set a precedent for the issuing of any other permits of this nature.

Topic 10: Odour

Many respondents expressed concern regarding the impact of odour arising from the installation and in particular, the free range roaming area.

Summary of actions taken or show how this has been covered

We have assessed the pollution control measures for odour prevention described in the application and we are satisfied that that the control measures are BAT for this installation and the operations are unlikely to cause significant pollution. Odour key issues, management, control at source, monitoring, complaint handling, accident and contingency procedures are included in the sites odour management plan which will be implemented on site. Condition 3.3.1 of the permit will ensure compliance with this plan as agreed.

The odour potential from manure on free-range poultry ranges, which is the only source of odour in these areas, is usually limited as the majority of manure is collected within the sheds and removed by the belts. The birds would not have 24 hour access to the ranging areas and typically only 10 to 20% of birds are likely to be outside at any one time, although this will vary. Manure that is deposited outside on the range will be reasonably well dispersed and the intended use of a paddock rotation plan is also good practice. The management techniques in the Odour Management Plan will extend to the ranging fields.

Odour is further discussed in [section 7.4](#).

Topic 11: Noise

A number of respondents raised concerns regarding noise emissions from the installation, particularly at night.

Summary of actions taken or show how this has been covered

As discussed in [section 7.5](#), based on the information in the Application, the noise management plan submitted on 19/04/2018 and the permit conditions we are satisfied that the appropriate measures will be in place to prevent or where that is not practicable to minimise noise and vibration beyond the installation boundary and that activities are unlikely to give rise to significant pollution.

Topic 12: Pests

Some respondents expressed concerns regarding the potential for increased pests and vermin such as flies and rats in the area.

Summary of actions taken or show how this has been covered

Pests such as flies and rodents could be attracted to manure and feed storage, the mitigating factors the operator has in place have been assessed and as such the risk of pollution from pests is deemed to be low.

- Flies attracted to manure – no manure will be stored on site, manure will be loaded into trailers twice weekly and immediately removed from site. The operator will carry out daily checks for flies around manure on the poultry house belts in between collection days. Steps to reduce any potential increase in fly numbers will be taken, such as increased manure removal frequency.
- Flies and rodents attracted to feed storage – the site utilise an enclosed feeding and feed store system which is regularly maintained. Any spills will be immediately swept up and cyclone dust collectors are fitted to the feed bins. Flies and rodents are unlikely to be able to gain access to the feed.

Topic 13: The use and storage of chemicals

Some respondents raised concerns regarding the use of chemicals and how they would be stored.

Summary of actions taken or show how this has been covered

The operator has confirmed that chemicals such as disinfectants and herbicides are stored in a bunded, fire proof and locked chemical store. Regular inspections are undertaken daily and deliveries are monitored. There are dedicated preparation areas for disinfectants, where any spillages can be retained (for liquids) or swept up (powders) and all staff are fully trained.

Topic 14: Fugitive emissions of dust and litter and reduction in local air quality.

Some respondents expressed concerns regarding increase in dust arising from the installation and the reduction in local air quality.

Some respondents expressed specific concerns regarding deposition of nitrates, ammonia, antibiotics, heavy metals, and the risk from airborne pathogens, including avian influenza and that the fan specification does not meet DEFRA criteria with regards to avian influenza.

Some respondents also raised concerns regarding increased litter in the area.

Summary of actions taken or show how this has been covered

The impacts of dust and bio-aerosols emission are discussed in [section 7.6](#). As there are no receptors within 100m of the Installation, the Applicant was not required to submit a dust and bio aerosol risk assessment. This is based on the best available evidence that bioaerosol emissions from intensive farming sites return to background levels after 100m, and if bioaerosol levels have returned to background levels we can assume the process is not placing an additional health burden. However, the Applicant will manage dust emissions by using a number of measures outlined in [section 7.6](#).

The impacts of ammonia emissions have been assessed, as detailed in [section 7.7 'Ammonia'](#), to not cause no likely damage.

The impacts of nitrate deposition have been assessed, as detailed in [section 7.8 'Nitrate deposition'](#), to not be an issue.

With regards to antibiotics, the Applicant has confirmed that no antibiotics will be used as all hens are looked after in accordance with Lion Code standards which prohibits the use of antibiotics

The Applicant has confirmed that there will be no added metals in the animal feed and so metal emissions are not considered to be an issue.

Avian Influenza and pathogens - We have consulted PHE and the Director of Public Health (Worcestershire County Council) on the Application in line with our guidance. PHE and the Director of Public Health have not raised any concerns with regards to bird flu and transmission to humans. The primary regulator for animal health is the APHA, whose primary purpose is to help safeguard animal health and welfare and public health. Therefore they are primarily responsible for ensuring the farming industry has measures in place to effectively deal with any disease outbreaks on site. Avian influenza is a notifiable disease and the Operator suspects their birds have it, they must tell their local APHA office immediately.

We have reviewed the DEFRA guidance "Biosecurity and preventing welfare impacts in poultry and captive birds, Advice for all poultry keepers, Last updated: 13 September 2017" and can find no mention of fan specifications for Avian Influenza control.

Litter is not expected to be an issue with a facility such as this.

In conclusion, having assessed the application and the consultation responses we are satisfied that there will no significant pollution of the environment or harm to human health.

Topic 15: Handling of waste

Some respondents were concerned about how waste is handled on site, particularly with regards to manure and the removal of deceased birds.

Summary of actions taken or show how this has been covered

The manure will be collected on a conveyer belt system within each poultry house. The manure will then be removed from each poultry house twice weekly straight to trailers and then taken off site. There will be no external manure heaps on site.

Any dead birds found in the bird stock are removed daily. Bird carcasses will stored in sealed, vermin proof freezers and removed off-site by animal health approved contractors.

Topic 16: Leakage/overspill from tanks causing groundwater pollution

Some respondents were concerned that the tanks would overspill/leak and there is a risk of run-off onto the

land and into local watercourses.
Summary of actions taken or show how this has been covered
Systems and infrastructure are in place to reduce the possibility of overfills and leaks for both the fuel tanks and dirty water tanks. Fuel tanks are banded, stock level controls and high level alarms are in place to avoid overfilling. The dirty water tanks have level control checks, an alarmed system and integrity testing.

Topic 17: Fire risk due to diesel storage
Concern was raised about the risk of fire due to diesel being stored onsite.
Summary of actions taken or show how this has been covered
The Applicant undertook an Accident Risk Assessment for the installation and subsequently produced a site specific Accident Management Plan. Systems and infrastructure are in place to reduce the fire risk on site. separation of incompatible materials and of combustible materials and ignition sources, Incorporation of fire breaks into site layout and containment of fire water, monitoring system and alarms in place, no smoking policy on site, maintain a tidy site and minimize stockpile of combustible materials, fire training and emergency drills

Topic 18: The fact that the operator is appealing against the planning decision
One respondent objected to the fact that planning permission has already been turned down and that the operator is appealing.
Summary of actions taken or show how this has been covered
Planning decisions are beyond our remit, however we note that the appeal was granted on 9/11/17

B) Consultation on the Draft Decision

This section reports on the outcome of the public consultation on our draft decision. In some cases the issues raised in the consultation were the same as those raised previously and already reported in section A of this Annex. Where this is the case, the Environment Agency response has not been repeated and reference should be made to section A for an explanation of the particular concerns or issues.

a) Consultation Responses from Statutory and Non-Statutory Bodies

Response received from
Wychavon District Council
Brief summary of issues raised
The consultee confirmed that “the site benefits from planning permission granted under reference W/16/03009/PN. Providing the permit reflects the planning approval and any relevant conditions on the Inspectors Decision Notice the LPA would have no objection to the granting of the permit on planning grounds.”
Summary of actions taken or show how this has been covered

No action required

b) Representations from Local MP, Assembly Member (AM), Councillors and Parish / Town / Community Councils

Response received from
Naunton Beauchamp Parish Council
Brief summary of issues raised
Further representations were received from a representative of Naunton Beauchamp Parish Council, a number of these issues are the same as those raised previously and already reported in section A of this Annex. The following new issues were raised: <ol style="list-style-type: none">1. Will the monthly spot tests (permit Table S1.3) will be undertaken by professionals.2. The previous landowners installed drainage pipes beneath the fields, we think these should be blocked.
Summary of actions taken or show how this has been covered
<ol style="list-style-type: none">1. The operator is required to undertake monthly monitoring spot tests of the Piddle Brook for the first year of operation. Tests must be carried out using standards set by the Environment Agency's Monitoring Certification Scheme (MCERTS), The MCERTS standards specify that personnel undertaking the monitoring must be certified MCERTS Inspectors.2. We have inspected the fields along with the Applicant and the only apparent drainage to Piddle Brook, within the installation boundary, is that marked as W1 on the site plan in schedule 7 of the permit. There are other drains leading to Piddle Brook but they are just outside of the installation boundary both upstream and downstream. Even if there are unknown drains under the fields, we consider that the measures discussed in section 7.8 and 7.10, are appropriate and we are satisfied that the activities at the Installation will not pose an unacceptable risk to ground or surface water. During our inspection we noted that the smallest ranging fields next to the brook will not drain to the wetland area, as they are between the wetland and the brook. As discussed in section 7.10, the wetland goes beyond the appropriate measures under the "Rules for farmers and land managers to prevent water pollution", and so we consider that these smaller ranging fields are still operated in a manner that will protect Piddle Brook. There will also be no other fertiliser applied to the ranging fields paddocks which will ensure that nutrient rates associated from the poultry manure will remain below the acceptable allowance per hectare for the land (see section 7.8). Monitoring required by Permit improvement condition IC1 will also provide evidence of the efficacy of the measures employed to protect the Brook. We have amended this decision document and the Permit to reflect that only the larger ranging fields will drain to the wetland area.

c) Representations from Community and Other Organisations

Response received from
WPAG - Wychavon Parishes Action Group
Brief summary of issues raised
Further representations were received via a telephone call from a representative of Wychavon Parishes Action Group (WPAG). The following new issues were raised: <ol style="list-style-type: none">1. Is there routine water quality monitoring on the Piddle Brook near to the A & C poultry farm site which is not yet operational?2. Will there be initial water quality monitoring before the farm is operational?3. Are members of the public able to volunteer (with training from the Environment Agency) to carry out monitoring of the Piddle Brook if the Environment Agency isn't already?
Summary of actions taken or show how this has been covered

A direct reply was submitted to the representative of WPAG on 29th August 2018, from our West Midlands Area Customers and Engagement team. This response is copied below:

1. We carry out standard river monitoring for specific parameters and general water quality indicators in order to classify them under the Water Framework Directive (WFD). These monitoring points are not specific to an installation, but they can help with compliance cases. The monitoring point on the Piddle Brook near to Seaford Lane, positioned downstream of the potential A&C poultry farm site is a general WFD site. This monitoring site has been sampled for water quality on a near monthly basis since 1980, and as such we have a long term data set for water quality downstream.

We monitor for changes in the water chemistry of rivers in order to understand their current chemical and biological quality and enable River Basin Management Plans (RBMP) to be created. RBMP's are designed to protect and improve the quality of our water environment. More information on RBMP's can be found [here](#).

If the proposed farm became operational in future, then the environmental permit used to regulate it will contain a specific improvement condition. This improvement condition will require the poultry farm operator to monitor the water quality of the Piddle Brook both upstream and downstream of the installation, as well as ensuring water quality doesn't deteriorate. The improvement condition will also require the operator to assess whether any additional mitigation is needed and if so to implement accordingly. If elevated levels of specific chemicals or negative ecological impacts were found in the river and the source was traced back to the installation, then the compliance officer would be responsible for investigating and taking enforcement action if appropriate.

2. Yes, as mentioned above, we already have a long term data set for water quality downstream of the proposed poultry farm.
3. We welcome anyone in the local community to carry out RiverFly monitoring in the Piddle Brook if they wish. This is a voluntary scheme where people can help to monitor the biological water quality of their local watercourses. Details of this initiative, including training workshops, can be found [here](#).

d) Representations from Individual Members of the Public

One response was received from an individual member of the public. Some of the issues raised were the same as those considered above. Only those issues additional to those already considered are listed below:

Topic 1: Intestinal worm control

One respondent raised concerns that medication given to the poultry to help control intestinal worms could produce a toxic chemical output, and asked about mitigation measures.

Summary of actions taken or show how this has been covered

The Applicant has confirmed that that the poultry are wormed once at 17 weeks of age. They arrive onsite at 15-16 weeks of age and are let out to range at 20 weeks of age.

Consequently if any medication passes through the poultry it will have been collected with the poultry houses and removed from the Installation, and it is very unlikely than any will be deposited on the ranging fields.

Topic 2: Nutritional Management

One respondent raised concerns around Nitrate deposition on the land, suggested reducing nitrogen in the poultry diet and recommended using a tool to calculate Nitrogen and Phosphorus output.

Summary of actions taken or show how this has been covered

Nutritional management for Nitrogen and Phosphorus excretion are already BAT conclusion considerations, including the use of established BAT-AEL's for laying hens. We have reviewed the techniques used by the operator consider them to be BAT, and have set limits on Nitrogen and Phosphorus excretion within Table S3.3 as referenced by condition 3.5.1 in the permit . This is discussed in [section 7.2](#) of this document

Appendix 1

Ammonia assessment – SSSI

Assessment: where sites screen out through distance

Using the ammonia screening tool version 4.5 has indicated that emissions from The Poultry Unit will only have a potential impact on SSSI sites with a precautionary critical level of $1\mu\text{g}/\text{m}^3$ if they are within 1,066m of the emission source.

Beyond 1,066m the PC is less than $0.2\mu\text{g}/\text{m}^3$ (i.e. less than 20% of the precautionary $1\mu\text{g}/\text{m}^3$ critical level) and therefore beyond this distance the PC is insignificant. In this case all (but one - Naunton Court Meadows) SSSIs are beyond this distance (see table 1 below) and therefore do not require any further assessment. However, due to commitments made during public engagement, we have carried out further assessment for all of these site.

Table 1 – SSSI Assessment

Name of SSSI	Distance from site (m)
Trench Wood	5,344
Naunton Court Meadows	1,047
Rabbit Wood	3,897
Salt Meadow, Earls Common	5,358
Yellow House Meadow	1,104
Grafton Wood	2,153
Baynhall Meadow	2,152
Portway Farms Meadows	2,875
Dormston Church Meadows	4,647

Assessment: where sites screen out as <20%

Using the ammonia screening tool version 4.5 has indicated that the PC for all SSSI sites is predicted to be less than 20% of the CLe for ammonia therefore it is possible to conclude no damage. The results are given in the table 2 below. A precautionary level of $1\mu\text{g}/\text{m}^3$ has been used during the screen. Where the precautionary level of $1\mu\text{g}/\text{m}^3$ is used, and the PC is assessed to be less than the 20% insignificance threshold in this circumstance it is not necessary to further consider nitrogen deposition or acid deposition CLo values. In these cases the $1\mu\text{g}/\text{m}^3$ level used has not been confirmed by Natural England, but it is precautionary.

A CLe of 3 for ammonia is applied to Naunton Court Meadows SSSI, APIS notes neutral grassland CLe 3 is appropriate, as there is no record of lichens or bryophytes being present (December 2016). In line with procedure we have further considered nitrogen deposition and acid deposition CLo values for Naunton Court Meadows. The results are given in tables 3 & 4 below.

Table 2 – Ammonia emissions

Site	Ammonia CLe ($\mu\text{g}/\text{m}^3$)	PC ($\mu\text{g}/\text{m}^3$)	PC % CLe
Trench Wood	1	0.016	1.57
Naunton Court Meadows	3	0.206	6.87
Rabbit Wood	1	0.0260	2.58
Salt Meadow, Earls Common	1	0.016	1.56
Yellow House Meadow	1	0.189	18.93

Grafton Wood	1	0.066	6.59
Baynhall Meadow	1	0.066	6.60
Portway Farms Meadows	1	0.042	4.18
Dormston Church Meadows	1	0.020	1.96

Table 3 – Nitrogen deposition

Site	CLo kg N/ha/yr. [1]	PC kg N/ha/yr.	PC % CLo
Naunton Court Meadows	20	1.069	5.35

Note [1] Critical load values taken from APIS website (www.apis.ac.uk) – 14th December 2017

Table 4 – Acid deposition

Site	CLo keq/ha/yr. [1]	PC keq/ha/yr	PC % CLo
Naunton Court Meadows	1.630	1.069	5.35

Note [1] Critical load values taken from APIS website (www.apis.ac.uk) – 14th December 2017

No further assessment is required. However, due to commitments made during the public engagement, we have gone beyond our normal procedures and carried out an in-combination assessment for this site.

Assessment: site between Y% and Z% for in combination assessments and other farms acting in combination

Using the ammonia screening tool version 4.5 has determined that the PC of ammonia, nitrogen deposition and acid deposition from the application site are **not** over the 20% threshold, and therefore **are unlikely to** cause damage to features of the SSSI. However, due to commitments made during public engagement, for the Frogmore Farm permit determination in 2016, an in-combination assessment has been carried out with Frogmore Farm (see tables 5 to 16 below).

A precautionary level of 1µg/m³ has been used during the screen. Where the precautionary level of 1µg/m³ is used, and the PC is assessed to be less than the 20% insignificance threshold in this circumstance it is not necessary to further consider nitrogen deposition or acid deposition CLo values. In these cases the 1µg/m³ level used has not been confirmed, but it is precautionary.

A CLe of 3 for ammonia is applied to Naunton Court Meadows SSSI, APIS notes neutral grassland CLe 3 is appropriate, as there is no record of lichens or bryophytes being present (December 2016). In line with procedure we have further considered nitrogen deposition and acid deposition CLo values for Naunton Court Meadows and included this in an in-combination assessment. The results are given in tables 8 & 9 below.

Lyppard Grange Ponds

Table 5 – In combination Assessment for Ammonia emissions

Name of Farm	PC µg/m ³	CLe µg/m ³	PC as % of CLe
The Poultry Unit (A&C Poultry)	0.008	1	0.81
Frogmore Farm	0.014	1	1.40
Total PC	0.022		2.21

NOTE – The predicted PC for each of the farms listed above are calculated using the Environment Agency's ammonia screening tool version 4.5. The values are conservative in their estimate of PC and thus greater than would be the case if detailed modelling was undertaken for each farm.

Tables 5 shows that the total PC at Lyppard Grange Ponds SSSI from both farms is 0.022ug/m³ for ammonia. In line with Environment Agency guidelines, where the total PC is less than 50% of the CLe in-combination impacts can be considered as not being likely to damage the features of the SSSI for which it has been designated. The total PC for Lyppard Grange Ponds SSSI from both farms is 2.21% for ammonia and therefore we have concluded no likely damage from in-combination impacts at the SSSI. No further assessment is required.

Trench Wood SSSI

Table 6 – In combination Assessment for Ammonia emissions

Name of Farm	PC µg/m ³	CLe µg/m ³	PC as % of CLe
The Poultry Unit (A&C Poultry)	0.016	1	1.57
Frogmore Farm	0.028	1	2.80
Total PC	0.044		4.37

NOTE – The predicted PC for each of the farms listed above are calculated using the Environment Agency's ammonia screening tool version 4.5. The values are conservative in their estimate of PC and thus greater than would be the case if detailed modelling was undertaken for each farm.

Table 6 shows that the total PC at Trench Wood SSSI from all farms is 0.044ug/m³ for ammonia. In line with Environment Agency guidelines, where the total PC is less than 50% of the CLe, in-combination impacts can be considered as not being likely to damage the features of the SSSI for which it has been designated. The total PC for Trench Wood SSSI from both farms is 4.37% for ammonia and therefore we have concluded no likely damage from in-combination impacts at the SSSI. No further assessment is required.

Naunton Court Meadows SSSI

Table 7 – In combination Assessment for Ammonia emissions

Name of Farm	PC µg/m ³	CLe µg/m ³	PC as % of CLe
The Poultry Unit (A&C Poultry)	0.206	1	6.87
Frogmore Farm	0.269	1	8.97
Total PC	0.475		15.83

NOTE – The predicted PC for each of the farms listed above are calculated using the Environment Agency's ammonia screening tool version 4.5. The values are conservative in their estimate of PC and thus greater than would be the case if detailed modelling was undertaken for each farm

Table 8 – In combination Assessment for nitrogen deposition

Name of Farm	PC µg/m ³	CLo kg N/ha/yr. [1]	PC as % of CLo
The Poultry Unit (A&C Poultry)	1.069	20	5.35
Frogmore Farm	1.399	20	7.00
Total PC	2.468		12.34

Note [1] CLo values taken from APIS website (www.apis.ac.uk) – 14th December 2017

NOTE – The predicted PC for each of the farms listed above are calculated using the Environment Agency's ammonia screening tool version 4.5. The values are conservative in their estimate of PC and thus greater than would be the case if detailed modelling was undertaken for each farm.

Table 9 – In combination Assessment for acid deposition

Name of Farm	PC µg/m ³	CLo kg N/ha/yr. [1]	PC as % of CLo
The Poultry Unit (A&C Poultry)	0.076	1.630	4.66
Frogmore Farm	0.100	1.630	6.13
Total PC	0.176		10.80

Note [1] CLo values taken from APIS website (www.apis.ac.uk) – 14th December 2017

NOTE – The predicted PC for each of the farms listed above are calculated using the Environment Agency's ammonia screening tool version 4.5. The values are conservative in their estimate of PC and thus greater than would be the case if detailed modelling was undertaken for each farm.

Tables 7, 8 and 9 show that the total process contribution at Naunton Court Meadows SSSI from both farms is 0.475ug/m³ for ammonia emissions, 2.468ug/m³ for nitrogen deposition and 0.176ug/m³ for acid deposition. In line with Environment Agency guidelines, where the total PC is less than 50% of the critical level/load, in combination impacts can be considered as not being likely to damage the features of the SSSI for which it has

been designated. The total PC for Naunton Court Meadows SSSI from all farms is 15.83% for ammonia emissions, 12.34% for nitrogen deposition and 10.80% for acid deposition, and therefore we have concluded no likely damage from in combination impacts at the SSSI.

No further assessment is required.

Rabbit Wood SSSI

Table 10 – In combination Assessment for Ammonia emissions

Name of Farm	PC µg/m ³	CLe µg/m ³	PC as % of CLe
The Poultry Unit (A&C Poultry)	0.026	1	2.58
Frogmore Farm	0.044	1	4.40
Total PC	0.070		6.98

NOTE – The predicted PC for each of the farms listed above are calculated using the Environment Agency's ammonia screening tool version 4.5. The values are conservative in their estimate of PC and thus greater than would be the case if detailed modelling was undertaken for each farm

Table 10 shows that the total process contribution at Rabbit Wood from both farms is 0.07ug/m³ for ammonia emissions. In line with Environment Agency guidelines, where the total PC is less than 50% of the critical level, in combination impacts can be considered as not being likely to damage the features of the SSSI for which it has been designated. The total PC for Rabbit Wood SSSI from all farms is 6.98% for ammonia emissions and therefore we have concluded no likely damage from in combination impacts at the SSSI. No further assessment is required.

Salt Meadow, Earls Court SSSI

Table 11 – In combination Assessment for Ammonia emissions

Name of Farm	PC µg/m ³	CLe µg/m ³	PC as % of CLe
The Poultry Unit (A&C Poultry)	0.016	1	1.56
Frogmore Farm	0.027	1	2.69
Total PC	0.043		4.25

NOTE – The predicted PC for each of the farms listed above are calculated using the Environment Agency's ammonia screening tool version 4.5. The values are conservative in their estimate of PC and thus greater than would be the case if detailed modelling was undertaken for each farm.

Table 11 shows that the total process contribution at Salt Meadow, Earls Court SSSI from both farms is 0.043ug/m³ for ammonia emissions. In line with Environment Agency guidelines, where the total PC is less than 50% of the critical level, in combination impacts can be considered as not being likely to damage the features of the SSSI for which it has been designated. The total PC for Salt Meadow, Earl Court SSSI from all farms is 4.25% for ammonia emissions and therefore we have concluded no likely damage from in combination impacts at the SSSI. No further assessment is required.

Yellow House Meadow SSSI

Table 12 – In combination Assessment for Ammonia emissions

Name of Farm	PC µg/m ³	CLe µg/m ³	PC as % of CLe
The Poultry Unit (A&C Poultry)	0.189	1	18.93
Frogmore Farm	0.187	1	18.70
Total PC	0.376		37.63

NOTE – The predicted PC for each of the farms listed above are calculated using the Environment Agency's ammonia screening tool version 4.5. The values are conservative in their estimate of PC and thus greater than would be the case if detailed modelling was undertaken for each farm

Tables 12 shows that the total process contribution at Yellow House Meadow SSSI from both farms is 0.376ug/m³ for ammonia emissions. In line with Environment Agency guidelines, where the total PC is less than

50% of the critical level/load, in combination impacts can be considered as not being likely to damage the features of the SSSI for which it has been designated. The total PC for Yellow House Meadow SSSI from all farms is 37.63% for ammonia emissions and therefore we have concluded no likely damage from in combination impacts at the SSSI. No further assessment is required.

Grafton Wood SSSI

Table 13 – In combination Assessment for Ammonia emissions

Name of Farm	PC µg/m ³	CLe µg/m ³	PC as % of CLe
The Poultry Unit (A&C Poultry)	0.066	1	6.59
Frogmore Farm	0.093	1	9.30
Total PC	0.159		15.89

NOTE – The predicted PC for each of the farms listed above are calculated using the Environment Agency’s ammonia screening tool version 4.5. The values are conservative in their estimate of PC and thus greater than would be the case if detailed modelling was undertaken for each farm

Table 13 shows that the total process contribution at Grafton Wood SSSI from both farms is 0.159ug/m³ for ammonia emissions. In line with Environment Agency guidelines, where the total PC is less than 50% of the critical level, in combination impacts can be considered as not being likely to damage the features of the SSSI for which it has been designated. The total PC for Grafton Wood SSSI from all farms is 15.89% for ammonia emissions and therefore we have concluded no likely damage from in combination impacts at the SSSI. No further assessment is required.

Baynhall Meadow SSSI

Table 14 – In combination Assessment for Ammonia emissions

Name of Farm	PC µg/m ³	CLe µg/m ³	PC as % of CLe
The Poultry Unit (A&C Poultry)	0.066	1	6.60
Frogmore Farm	0.081	1	8.10
Total PC	0.147		14.70

NOTE – The predicted PC for each of the farms listed above are calculated using the Environment Agency’s ammonia screening tool version 4.5. The values are conservative in their estimate of PC and thus greater than would be the case if detailed modelling was undertaken for each farm

Table 14 shows that the total process contribution at Baynhall Meadow SSSI from both farms is 0.147ug/m³ for ammonia emissions. In line with Environment Agency guidelines, where the total PC is less than 50% of the critical level/load, in combination impacts can be considered as not being likely to damage the features of the SSSI for which it has been designated. The total PC for Baynhall Meadow SSSI from all farms is 14.70% for ammonia emissions and therefore we have concluded no likely damage from in combination impacts at the SSSI. No further assessment is required.

Portway Farm Meadows SSSI

Table 15 – In combination Assessment for Ammonia emissions

Name of Farm	PC µg/m ³	CLe µg/m ³	PC as % of CLe
The Poultry Unit (A&C Poultry)	0.042	1	4.18
Frogmore Farm	0.058	1	5.80
Total PC	0.100		9.98

NOTE – The predicted PC for each of the farms listed above are calculated using the Environment Agency’s ammonia screening tool version 4.5. The values are conservative in their estimate of PC and thus greater than would be the case if detailed modelling was undertaken for each farm

Table 15 shows that the total process contribution at Portway Farm Meadows SSSI from both farms is 0.100ug/m³ for ammonia emissions. In line with Environment Agency guidelines, where the total PC is less than 50% of the critical level, in combination impacts can be considered as not being likely to damage the features of the SSSI for which it has been designated. The total PC for Portway Farm Meadows SSSI from all farms is

9.98% for ammonia emissions and therefore we have concluded no likely damage from in combination impacts at the SSSI. No further assessment is required.

Dormston Church Meadow SSSI

Table 16 – In combination Assessment for Ammonia emissions

Name of Farm	PC $\mu\text{g}/\text{m}^3$	CLe $\mu\text{g}/\text{m}^3$	PC as % of CLe
The Poultry Unit (A&C Poultry)	0.020	1	1.96
Frogmore Farm	0.031	1	3.10
Total PC	0.051		5.06

NOTE – The predicted PC for each of the farms listed above are calculated using the Environment Agency's ammonia screening tool version 4.5. The values are conservative in their estimate of PC and thus greater than would be the case if detailed modelling was undertaken for each farm

Table 16 shows that the total process contribution at Dormston Church Meadow SSSI from both farms is $0.051\mu\text{g}/\text{m}^3$ for ammonia emissions. In line with Environment Agency guidelines, where the total PC is less than 50% of the critical level/load, in combination impacts can be considered as not being likely to damage the features of the SSSI for which it has been designated. The total PC for Dormston Church Meadow SSSI from all farms is 5.06% for ammonia emissions and therefore we have concluded no likely damage from in combination impacts at the SSSI. No further assessment is required.

Ammonia assessment – Local Wildlife Sites (LWS) and Ancient Woodlands (AW)

Assessment: sites that screen out from distance criteria

Using ammonia screening tool version 4.5 has indicated that emissions from The Poultry Site (A&C Poultry) will only have a potential impact on the LWS or AW sites with a precautionary CLe of $1\mu\text{g}/\text{m}^3$ if they are within 385m of the emission source.

Beyond 385m the PC is less than $1\mu\text{g}/\text{m}^3$ and therefore beyond this distance the PC is insignificant. In this case all LWSs and AWs (except for Piddle and Whitsun Brooks) are beyond this distance and therefore screen out of any further assessment.

Piddle and Whitsun Brooks, although <250m from the installation, are primarily designated for their aquatic interests so the aerial impact from ammonia, nitrogen deposition and acidification is considered to be low. Piddle and Whitsun Brooks (LWS) have no record of lower plants being present along the bank sides of the watercourse.

Given the nature of the habitat being flowing water and having no record of lower plants being present along the bank sides, the significance of aerial ammonia, acidification and deposition is less than for standing water and the risk of environmental impact from aerial ammonia and deposition pollution is insignificant - the application of a CLe for atmospheric ammonia (and therefore a CLo for ammonia deposition and acidification) is not considered appropriate in this instance.

However, due to commitments made during public engagement, we have carried out an in-combination assessment for these site.

Assessment: in-combination assessment with Frogmore Farm

Using the ammonia screening tool version 4.5 has determined that the PC on the LWS/AW for ammonia from the application site are under the 100% significance threshold and can be screened out as not causing significant pollution. However, due to commitments made during public engagement, we have carried out an in-combination assessment with Frogmore Farm.

Precautionary CLe of $1\mu\text{g}/\text{m}^3$ has been used. Where the precautionary level of $1\mu\text{g}/\text{m}^3$ is used, and the PC is assessed to be less than 100% the site automatically screens out as insignificant, and no further assessment of CLo is necessary. In these cases the $1\mu\text{g}/\text{m}^3$ level used has not been confirmed, but it is precautionary.

Piddle and Whitsun Brooks, although <250m from the installation, are primarily designated for their aquatic interests so the aerial impact from ammonia, nitrogen deposition and acidification is considered to be low. Piddle and Whitsun Brooks (LWS) have no record of lower plants being present along the bank sides of the watercourse.

Given the nature of the habitat being flowing water and having no record of lower plants being present along the bank sides, the significance of aerial ammonia, acidification and deposition is less than for standing water and the risk of environmental impact from aerial ammonia and deposition pollution is insignificant - the application of a CLe for atmospheric ammonia (and therefore a CLo for ammonia deposition and acidification) is not considered appropriate in this instance, and this site has not been included in the in-combination assessment.

See results in table 17 below.

Table 17 - Ammonia emissions

Site	CLe ammonia $\mu\text{g}/\text{m}^3$	A&C Predicted PC $\mu\text{g}/\text{m}^3$	Frogmore Farm PC $\mu\text{g}/\text{m}^3$	Total PC $\mu\text{g}/\text{m}^3$	A&C PC % of CLe	Frogmore Farm PC as % of CLe	Total PC as % of CLe
Old House Farm Meadow LWS	1*	0.138	0.164	0.302	13.76	16.45	30.21
Naunton Court Estate: Piddle Brook Meadow LWS	1*	0.240	0.237	0.477	23.96	23.72	47.68
Bankside and Moathouse Meadows LWS	1*	0.152	0.206	0.358	15.23	20.57	35.8
New House Farm Meadow LWS	1*	0.218	0.368	0.586	21.79	36.77	58.56
Humblebee Hall Meadow LWS	1*	0.157	0.266	0.423	15.66	26.60	42.26
Grove Farm Meadows LWS	1*	0.140	0.213	0.353	14.02	21.26	35.28
Bow Wood LWS	1*	0.057	0.113	0.17	5.66	11.30	16.96
Naunton Court Orchard LWS	1*	0.125	0.163	0.288	12.53	16.29	28.82
North Piddle Meadows LWS	1*	0.376	0.294	0.67	37.60	29.40	67.00
Grafton Wood LWS	1*	0.054	0.093	0.147	5.41	9.30	14.71
Tolleys Pasture	1*	0.086	0.121	0.207	8.65	12.14	20.79

LWS							
Grafton Wood AW	1*	0.064	0.093	0.157	6.42	9.30	15.72
Bow Wood AW	1*	0.057	0.113	0.17	5.66	11.30	16.96

Appendix 2

CROW assessment summary

Any potential effects of ammonia and nitrogen and acid deposition at the sites has been shown to screen out due to the distance of the proposed poultry unit from the SSSI sites, with the exception of Naunton Court Meadows. Using the ammonia screening tool version 4.5 has indicated that emissions from The Poultry Unit will only have a potential impact on SSSI sites with a precautionary critical level of $1\mu\text{g}/\text{m}^3$ if they are within 1,066m of the emission source.

Beyond 1,066m the PC is less than $0.2\mu\text{g}/\text{m}^3$ (i.e. less than 20% of the precautionary $1\mu\text{g}/\text{m}^3$ critical level) and therefore beyond this distance the PC is insignificant. In this case all (but one - Naunton Court Meadows) SSSIs are beyond this distance and therefore do not require any further assessment.

A CLe of 3 for ammonia is applied to Naunton Court Meadows SSSI, APIS notes neutral grassland CLe 3 is appropriate, as there is no record of lichens or bryophytes being present (December 2016). In line with procedure we have further considered nitrogen deposition and acid deposition CLo values for Naunton Court Meadows.

The process contribution for Aerial Ammonia, Nitrogen and Acid deposition at Naunton Court Meadows are both <20% of the relevant CLe/CLo threshold, and therefore are unlikely to cause damage to features of the SSSI.

Therefore, the Environment Agency concludes that no further action is required. The permission is **not likely to damage** any of the flora and fauna which are of special interest to the SSSI.