IAN PICK ASSOCIATES LTD.
SPECIALIST AGRICULTURAL AND RURAL PLANNING CONSULTANTS

ENVIRONMENTAL STATEMENT

ERECTION OF 6 No. ADDITIONAL BROILER REARING UNITS AT DEEPING POULTRY FARM, DEEPING ST NICHOLAS, SPALDING

D V VENTURES LTD

DECEMBER 2016

Report Prepared By: Ian Pick BSc (Hons) MRICS
Ian Pick Associates Limited
Station Farm Offices
Wansford Road
Nafferton
Driffield
YO25 8NJ

Tel: 01377 253363
mail@ianpick.co.uk

CONTENTS

Chapter		Page No.
1.	INTRODUCTION	3
2.	ENVIRONMENTAL IMPACT ASSESSMENT	4
3.	DESCRIPTION OF DEVELOPMENT	6
4.	ALTERNATIVE SITES	9
5.	PLANNING AND POLICY FRAMEWORK	10
6.	POTENTIAL ENVIRONMENTAL AFFECTS	12
7.	NOISE ASSESSMENT	13
8.	ODOUR ASSESSMENT	14
9.	DRAINAGE / ENVIRONMENTAL MANAGEMENT	15
10.	DUST ASSESSMENT	18
11.	AMMONIA DEPOSITION	20
12.	ECOLOGY AND NATURE	21
13.	LANDSCAPE	22
14.	TRANSPORT AND ACCESS	24
15.	DETAILS OF CONSULTATION	27
16.	NON TECHNICAL SUMMARY	28

APPENDICES

APPENDIX 1	LOCATION PLAN
APPENDIX 2	NOISE ASSESSENT
APPENDIX 3	ODOUR ASSESSMENT
APPENDIX 4	DRAINAGE AND FLOOD RISK
APPENDIX 5	AMMONIA SCREENING
APPENDIX 6	ECOLOGY REPORT
APPENDIX 7	LANDSCAPE AND VISUAL IMPACT ASSESSMENT

1. INTRODUCTION

1.1 This Environmental Statement has been commissioned by D V Ventures Ltd of Mount Farm, Shirley, Ashbourne, Derbyshire, to accompany a planning application for the erection of 6 No. additional poultry buildings at Deeping Poultry Farm (Grid Reference: 522979, 316716).

1.2 The Town and Country Planning (Environmental Impact Assessment) Regulations 2011 provide for the submission of an Environmental Statement for certain types of development. The regulations prescribe the types of development for which EIA is mandatory (Schedule 1 Development). Regulation 17a provides for mandatory EIA with all proposals which exceed 85,000 birds.

1.3 This report has been prepared by Ian Pick. Ian Pick is a specialist agricultural and rural planning consultant. He holds a Bachelor of Science with Honours Degree in Rural Enterprise and Land Management and is a Professional Member of the Royal Institution of Chartered Surveyors, being qualified in the Rural Practice Division of the Institution.

1.4 Ian Pick has 18 years experience specialising in agricultural and rural planning whilst employed by MAFF, ADAS, Acorus and most recently, Ian Pick Associates Limited.

2. ENVIRONMENTAL IMPACT ASSESSMENT

Regulatory Context

2.1 The requirements of Environmental Impact Assessment are provided within the Town and Country Planning (Environmental Impact Assessment) Regulations 2011. These are referred to as the EIA regulations within this document. The EIA regulations require that any development which is listed in Schedule 1 be subject to EIA.

2.2 The proposed development falls within the definition of Section 17 of Schedule 1, 'Installations for the intensive rearing of poultry or pigs' as it exceeds the threshold of 85000 broilers as defined in Section 17 part (a).

Screening

2.3 The process of determination whether a proposed development requires an EIA is called 'screening'. The EIA Regulations permit for a developer to request a screening opinion from the Local Planning Authority (LPA) to determine whether the EIA process should be followed. Given the nature and scale of the development, the proposal automatically falls within the context of Section 17 of Schedule 1, therefore a screening opinion was not necessary as EIA is automatically triggered because the proposal exceeds the threshold set in Schedule 1, Section 17 (a).

Assessment and Reporting Methodology

2.4 Following identification of environmental effects, technical assessments were carried out in order to predict potential effects associated with the development and where necessary proposed measures to mitigate the effects. These assessments are contained within the Environmental Statement.

The Environmental Statement

2.5 The Environmental Statement has been prepared to accompany an application for planning permission for the erection of 6 No. additional broiler units. The application has been submitted to South Holland District Council under the terms of the Town and County Planning Act 1990.

2.6 The Town and Country Planning (Environmental Impact Assessment) Regulations 2011, Schedule 4, requires that an Environmental Statement should include at least the following information:

- A description of the development including information on the site, design and size of the development;
- A description of the measures envisaged in order to avoid, reduce and, if possible, remedy any significant adverse effects;
- The data required to identify and assess the main effects which the development is likely to have on the environment;

- An outline of the main alternatives studied by the applicant and an indication of the main reason for this choice taking into account the environmental effects; and
- A non-technical summary of the above.

Contributors to the Environmental Statement

2.7 The team of consultants involved in the EIA are listed in table 2.1 below. Each was selected for their technical services and expertise in their respective fields.

Table 2.1

Chapter	Consultants
1. Introduction	**IPA ltd**
2. EIA Process	**IPA ltd**
3. Description of Development	**IPA ltd**
4. Alternatives	**IPA ltd**
5. Planning Policy Context	**IPA ltd**
6. Potential Environmental Effects	**IPA ltd**
7. Noise	**Matrix Acoustic Design**
8. Odour	**AS Modelling and Data**
9. Drainage	**Hydro Logic**
10. Dust	**IPA Ltd**
11. Ammonia & Nitrogen Deposition	**Environment Agency**
12. Ecology	**Craig Emms**
13. Landscape Impact	**ACD Landscape Architects**
14. Transport and Access	**IPA ltd**
16. Details of Consultation	**IPA ltd**
17. Non Technical Summary	**IPA ltd**

3. DESCRIPTION OF DEVELOPMENT

Background Information

3.1 The applicant operate an established poultry farming business at Deeping Poultry Farm. The existing business extends to 10 No. poultry buildings and the whole site accommodates up to 399,000 broiler chickens.

3.2 The applicant propose to expand their existing agricultural business with the erection of 6 No. additional poultry buildings for broiler rearing.

Project Description

3.3 The applicants have submitted a planning application to South Holland District Council for the erection of 6 No. additional poultry buildings, each measuring 109.729m x 24.389m with an eaves height of 2.9m and a ridge height of 6.147m; together with control rooms and bulk bins. The proposed buildings will house up to 56,833 birds each, with 341,000 additional birds proposed on the site in total. A location plan detailing the location of the development is shown at **Appendix 1.**

3.4 The proposed buildings are of steel portal frame construction and the external cladding is a polyester coated profile sheeting for the walls and roof. The finished colour of the walls is juniper green and the roof will be natural grey.

3.5 The proposed buildings are identical and will have pan feeders, non drip nipple drinkers and hot water heating provided by the existing biomass boiler with an LPG gas back up system. Ventilation within the buildings is based on high velocity chimneys with side inlet vents.

3.6 The ventilation, heating and feeding systems are all fully automated and controlled by a computer system located within the control room. The system is alarmed for high and low temperature, feeding system failure and power failure. The alarm system will be linked to an 'auto dial' computer system which alerts personnel via mobile phone to any system failures.

3.7 The proposed poultry unit will produce standard birds, based on a 38 day growing cycle, with 10 days at the end of each cycle for cleanout and preparation of the buildings for the incoming flock. The whole expanded unit will operate on an all in all out system with 7.5 flocks per annum.

3.8 The chicks are placed within the building as day olds and reared within the building for 38 days.

3.9 During the growing cycle temperature is controlled within the buildings. The buildings are pre-warmed to a temperature of 32ºC on day 1 of the cycle reducing to 18ºC over the growing cycle. The temperature is controlled by heaters and the ventilation system.

3.10 At the end of each flock cycle, the buildings are cleaned out and the manure removed using bobcat type machines and loaded directly in waiting vehicles, which are sheeted and the manure removed from the site for disposal via biomass power stations.

3.11 Following manure removal, the buildings will be washed out with high pressure hoses and prepared for the incoming flock. The inside of the building is drained to a sealed dirty water tank which will be emptied following each cleanout of the building by tanker.

Construction Phase

3.12 The construction phase of the proposed development will extend to approximately 20 weeks with working hours being 7am to 6pm Monday to Friday and 7am to 1pm on Saturdays. The construction works are split into the following phasing:
Grounds works and site levelling – 3 weeks
Importation of stone and sub-base preparation – 2 weeks
Preparation of foundations for steelwork supports – 1 week
Erection of steel work and cladding – 4 weeks
Concreting of building floors and aprons – 2 weeks
Fitting out and installation of equipment – 8 weeks

3.13 The construction of the development will require the following volumes of materials:
Stone: 4800m^3; Concrete: 1250m^3; Steel Framework: 160 tonnes; Steel Sheeting: 192 tonnes; Timber: 120 tonnes.

3.14 The construction materials will be delivered into the site using HGV vehicles. Stone will be delivered using 6 wheel rigid quarry lorries; Concrete using 6 wheel rigid ready mix concrete lorries; and steel framework and sheeting using articulated lorries with flatbed trailers.

3.15 The proposal is a permanent development and the estimated design life of the buildings is in excess of 50 years.

Characteristics and Production Processes

3.16 The use of the proposed buildings is for the rearing of day old broiler chickens through to finished table weight.

Expected Residues and Emissions

3.17 The proposed broiler unit expansion requires a permit under the Environment Agencies IPPC permitting regime.

3.18 In order to operate, any poultry unit with more than 40,000 birds is required by law to hold an IPPC permit which is administered by the Environment Agency. The permit must take into account the whole environmental performance of the plant, covering e.g. emissions to air, water and land, generation of waste,

use of raw materials, energy efficiency, noise, prevention of accidents, and restoration of the site upon closure. The purpose of the Directive is to ensure a high level of protection of the environment taken as a whole. As the proposed poultry unit will be controlled under the IPPC permitting regime, the likelihood of significant impact on the environment from the proposed development is negligible due to the strict regime of control.

3.19 Expected residues and emissions from the site are limited to:

- Airbourn emissions in the form of odour, ammonia, nitrogen and dust.
- Noise emission from mechanical ventilation.
- Production of waste in the form of poultry manure and dirty water.

Forecasting Methods

3.20 The forecasting methods used within this assessment are detailed within the individual chapters and assessments. With few exceptions, the assessment for impacts for a development of this nature are controlled through the Environmental Permitting Regulations (England and Wales) 2010, with specific regulatory requirement as to how the impacts are forecast.

4. CHOICE OF LOCATION / ALTERNATIVE SITES

4.1 The Town and Country Planning (Environmental Impact Assessment) Regulations 2011 require an Environmental Statement to cover alternatives studied by the applicants. In this instance, the proposal is for the expansion of an existing use on an established poultry unit with an IPPC permit from the Environment Agency.

4.2 It is considered that proposed location of the development is appropriate by virtue of the existing use of the site. It is an established planning principle that new farm buildings should be sited adjacent to existing farm buildings wherever practicable.

5. PLANNING AND POLICY FRAMEWORK

Introduction

5.1 This chapter identifies planning policy relevant to the proposed development and the application site, together with an assessment of the development proposal against the planning policy and guidance.

5.2 The proposed development has been prepared having regard to national and local policy and guidance.

National Planning Policy Framework

5.3 The National Planning Policy Framework confirms that the purpose of the planning system is to contribute towards the achievement of sustainable development. Paragraph 7 of the NPPF states "There are three dimensions to sustainable development: economic, social and environmental. These dimensions give rise to the need for the planning system to perform a number of roles:

- **an economic role** – contributing to building a strong, responsive and competitive economy, by ensuring that sufficient land of the right type is available in the right places and at the right time to support growth and innovation; and by identifying and coordinating development requirements, including the provision of infrastructure;

- **a social role** – supporting strong, vibrant and healthy communities, by providing the supply of housing required to meet the needs of present and future generations; and by creating a high quality built environment, with accessible local services that reflect the community's needs and support its health, social and cultural well-being; and

- **an environmental role** – contributing to protecting and enhancing our natural, built and historic environment; and, as part of this, helping to improve biodiversity, use natural resources prudently, minimise waste and pollution, and mitigate and adapt to climate change including moving to a low carbon economy"

5.4 Paragraph 18 and 19 set the Governments position on economic growth, as detailed below:

18. The Government is committed to securing economic growth in order to create jobs and prosperity, building on the country's inherent strengths, and to meeting the twin challenges of global competition and of a low carbon future.
19. The Government is committed to ensuring that the planning system does everything it can to support sustainable economic growth. Planning should operate to encourage and not act as an impediment to sustainable growth. Therefore significant weight should be placed on the need to support economic growth through the planning system.

5.5 Paragraph 28 provides support for economic growth in rural areas, as detailed below:

28. Planning policies should support economic growth in rural areas in order to create jobs and prosperity by taking a positive approach to sustainable new development. To promote a strong rural economy, local and neighbourhood plans should:

- support the sustainable growth and expansion of all types of business and enterprise in rural areas, both through conversion of existing buildings and well designed new buildings;
- promote the development and diversification of agricultural and other land-based rural businesses;"

5.6 Paragraph 122 refers to developments where a separate Environmental Permit is required in terms of the operation of the site.

122.local planning authorities should focus on whether the development itself is an acceptable use of the land, and the impact of the use, rather than the control of processes or emissions themselves where these are subject to approval under pollution control regimes. Local planning authorities should assume that these regimes will operate effectively.

Local Planning Policy – South Holland Local Plan 2006

5.7 Local Planning Policy is contained within the South Holland Local Plan 2006. The following policies are considered relevant to the proposed development.
SG4 – Development in the Countryside
SG11 – Sustainable Urban Drainage Systems (SuDS)
SG13 – Pollution and Contamination
SG18 – Landscaping of New Development

6. POTENTIAL ENVIRONMENTAL AFFECTS

6.1 The bird numbers associated with the proposed development exceeds Schedule 1 threshold, and therefore an EIA is required as part of the planning application process.

6.2 Consideration of the development proposal provides a requirement for the following topics to be covered with the Environmental Statement: Plant Noise; Odour; Foul and Surface Water Drainage/Flood Risk; Dust; Ammonia & Nitrogen Deposition; Ecology and Nature Conservation; Landscape and Visual Impact; Transport and Access and Details of Consultation.

7. NOISE ASSESSMENT

Introduction

7.1 A detailed plant and operational noise assessment has been prepared by Matrix Acoustic Design Consultants. The full detailed analysis, which includes the results of a noise survey and acoustic calculations, is provided at **Appendix 2**.

Baseline Conditions

7.2 A noise survey has been conducted to determine the typical background noise levels at the nearest noise dwellings (Dwellings A - D, Figure 1) to Deeping Poultry Farm, Spalding.

The Proposed Conditions

7.3 The extract fan noise as a result of both the existing and proposed poultry units have been assessed in accordance with BS4142:2014.

7.4 Via calculation (Appendix B) it has been demonstrated that at the nearest dwellings, Dwellings A – D, Figure 1, the highest background during the day, evening and night.

7.5 BS4142:2014 states that the Specific Level will have a low impact when the Rating Level is at parity to the typical background. On this basis we conclude that the noise impact externally will be negligible.

Cumulative Impacts

7.6 The noise impact assessment is based on a background noise survey. The background noise survey takes into account all existing noise sources in the locality.

Mitigation

7.7 The assessment concludes that the aggregate noise emissions from the proposed extract fans will be negligible.

Residual Impact

7.8 No adverse residual noise impacts in relation to extract fan noise from the new poultry units are anticipated

Summary

7.9 BS4142:2014 states that the Specific Level will have a low impact when the Rating Level is at parity to the typical background. On this basis we conclude that the noise impact externally will be negligible.

8. ODOUR ASSESSMENT

8.1 A detailed Odour Impact Analysis of the proposed development has been prepared by AS Modelling and Data. The full detail of the report is attached at **Appendix 3.**

Baseline Conditions

8.2 The application site is currently an established poultry unit, extending to 10 No. poultry buildings and housing 399,000 birds.

Impact of the Proposed Development

8.3 AS Modelling & Data Ltd. has been instructed by Ian Pick of Ian Pick Associates Ltd. on behalf of D V Ventures Ltd. to use computer modelling to assess the impact of odour emissions from the existing and proposed broiler rearing houses at Deeping Poultry Unit, Main Road, Deeping St Nicholas, Lincolnshire. PE11 3BW.

8.4 Odour emission rates from the existing and proposed poultry houses have been assessed and quantified based upon an emissions model that takes into account the internal odour concentrations and ventilation rates of the poultry houses. The odour emission rates so obtained have then been used as inputs to an atmospheric dispersion model which calculates odour exposure levels in the surrounding area.

8.5 The results of the modelling indicate that, should the proposed development of the poultry unit at Deeping Poultry Unit proceed, the 98^{th} percentile hourly mean odour concentration at nearby residences (not associated with the farm) would be below the Environment Agency's benchmark for moderately offensive odours, a 98^{th} percentile hourly mean of 3.0 ou_E/m^3 over a one year period.

Mitigation

8.6 The results of the modelling indicate that odour exposure levels at residences surrounding the proposed poultry unit would be below the Environment Agency's benchmark for moderately offensive odours, a 98th percentile hourly mean of 3.0 ouE/m3 over a one year period. The maximum predicted odour exposure is 2.50 ouE/m3.

Summary

8.7 At all of the receptors, the proposed development is below the Environment Agency threshold of 3 ouE/m3, therefore there will be not be an appreciable loss of amenity at any of the neighbouring dwellings.

CHAPTER 9.

9. FOUL & SURFACE WATER DRAINAGE / FLOOD RISK AND WATER RESOURCES / ENVIRONMENTAL MANAGEMENT

Baseline Conditions

9.1 The application site comprises an established poultry unit and arable land. The existing unit operates with a sustainable drainage system in the form of an attenuation pond and restricted discharge to the drainage ditch system. A detailed Flood Risk Assessment and Surface Water Management Strategy for the proposed development has been provided by Hydro Logic Services and the full report is shown at **Appendix 4** of this statement.

Assessment

Drainage and Flood Risk

9.2 The surface water management design proposes SuDS that will limit the total site runoff from the proposed development to a greenfield runoff rate. Attenuation is proposed in the form an extension to the existing attenuation pond which is located to the east of the poultry sheds. The attenuation pond outfalls into the watercourse to the east through a restricted orifice which limits discharge to the appropriate greenfield rate. The purpose of the attenuated system is to store clean water on site during peak rainfall events and release into the drainage system at a normal greenfield runoff rate. The use of this type of system prevents surges during high rainfall and provides benefits in terms of downstream flooding consequences.

9.3 Foul and surface water drainage on the site will be separated to prevent discharge of dirty water to watercourses. The inside of the proposed building will be sealed and drained to sealed dirty water containment tanks. The proposed dirty water tanks will collect contaminated water produced in the washing out process.

Cleaning Process

9.4 The cleaning process of the building is undertaken at the end of each flock cycle. The birds are removed at day 38, and the cleaning process is commenced. Manure removal is undertaken first using a mechanical loader. Following manure removal, the buildings are power washed. Following power washing, the buildings are bedded with shavings and pre-warmed with the heating system in readiness of the incoming flock.

Foul Drainage (washout water).

9.5 The washing out process is undertaken at the end of every 38 day growing cycle. The inside of the building is drained to a sealed tank which collects the dirty washout water. The tank must be SSAFO certified. The dirty water tank will be situated below ground, and will have a capacity of 90,000 litres which

is compliant with IPPC permitting standards based on the floor area of the buildings. This tank will be periodically emptied by vacuum tanker.

Manure Disposal

9.6 The proposed additional poultry units will operate on a floor litter basis and will generate an additional 340 tonnes of manure per flock cycle. Manure will be removed from the buildings at the end of the flock cycle and loaded directly into tractors and trailers and transported off the site for disposal through biomass power stations.

Carcass Disposal

9.7 Dead birds are collected from the within the buildings on a daily basis. Dead birds are stored within a sealed carcass bin and collected by a licensed fallen stock operator.

Pest Control

9.8 The unit is required to operate a pest control protocol, with regular baiting for rodents. Flies breed within poultry litter, and the short flock cycle and regular removal of litter breaks the fly breeding cycle. Fly problems encountered are dealt with using a knock down spray.

Destocking

9.9 The buildings will operate on a 38 day growing cycle. Destocking commences on day 30 & 31 with 35% of the birds removed. The remainder of the birds are removed at day 36, 37 & 38. The birds are manually caught with the buildings at loaded into bird modules. The modules are then loaded onto lorries for removal to the processors.

9.10 The flock cycle for the proposed poultry buildings is based on an all in all out system for the whole expanded site of 16 buildings.

Mitigation

9.11 The surface water drainage scheme proposed is to a SuDS system and therefore mitigates the potential surface water runoff and downstream flood consequences.

9.12 All manure produced by the proposed development will be loaded into trailers and exported from the application site for disposal via biomass power stations.

9.13 The inside of the buildings will be drained to a sealed dirty water collection tank. This prevents the potential for pollution arising from dirty water on the site, and is also a specific requirement in terms of the Environment Agencies IPPC permitting.

9.14 Carcass disposal will be undertaken to best practice, with dead birds collected daily and stored in a sealed bin prior to collection by a fallen stock operative. This is best practice and is also a specific requirement of the IPPC permitting.

Residual Impacts

9.15 The proposed poultry unit is designed to best available technology, and the operational systems are best practice. The surface water drainage system proposes to use the extended attenuation pond. The surface water drainage mitigation proposals ensure no residual impacts.

9.16 Foul and surface water drainage arrangements are separated, with all dirty water directed to a sealed containment system, negating any potential for ground or surface water pollution.

9.17 Operational characteristics and environmental management of the unit are to best practice and strictly monitored by the Environment Agency ensuring no unacceptable residual impact.

Summary

9.18 The design, drainage operational and environmental management of the unit conform to best practice. The mitigation proposed will ensure that the unit does not present any potential for negative impact on water resources or unacceptable impacts on residential amenity.

CHAPTER 10

10. DUST

Baseline Conditions

10.1 The application site is an established poultry unit. Dust can be created on a poultry unit, however impacts are generally limited to the immediate vicinity of the poultry unit.

Assessment

10.2 The assessment of dust from poultry farms formed part of a DEFRA research project. DEFRA project AC0104. The summary of the DEFRA research project is shown in the text below.

"This work represents one of the most comprehensive studies to quantify PM emissions from poultry housing to date, comparing a total of eight farms. Large variations between farm management practises, lighting regimes, litter conditions, and meteorology contributed to variability in emissions, even for the same type of farm. However, the measurements undertaken as part of this study were also able to identify differences in concentrations and emissions of particles between different farm types. The broiler installations were associated with the largest indoor air $PM_{2.5}$ and PM_{10} concentrations (655 µg m^{-3} and 2990 µg m^{-3}, respectively) and the highest bacterial fungal counts. Concentrations for particulate matter and bioaerosols were the lowest at battery farms. In general, indoor particle concentrations increased during winter time and light periods, reflecting ventilation rate and bird activity as the dominant influences. On the other hand, emission factors increased slightly during light-time in the summer months, due to the increase in ventilation rate. Chemical speciation measurements indicated that (i) NH_4NO_4 was not forming within the shed, (ii) the dominant inorganic species sourced from poultry material are Ca^{2+}, K^+ and Mg^{2+}, and (iii) the key metals in the poultry sheds include Al, As, Ba, Cu (light only), Cr, Mn, Rb, Sr and Ti. We here derived, to our knowledge for the first time, poultry emission factors for aerosol chemical components (metals and major inorganic ions) and when compared against the NAEI suggest that between 0.1 – 4% (depending on compound) of the UK metal and inorganic ion emissions are derived from poultry house emissions. Bioaerosol concentrations in the building represent a risk to poultry workers in terms of respiratory allergy or disease, but the levels emitted are sufficiently diluted over a short distance from the building so as not to pose a risk to those living in the vicinity of poultry operations. PM10 particulate levels were reduced to background levels by 100m downwind of even the highest emitting poultry houses, therefore are unlikely to pose a risk to those living in the vicinity of poultry operations."

10.3 The results of the DEFRA research project demonstrated that emissions from poultry units in terms of particulate matter reduced to background levels by 100m downwind of the even the highest emitting poultry houses. The research shows that levels of particulate matter are sufficiently diluted over a short

distance so as not to pose a risk to these living in the vicinity of poultry operations.

10.4 The nearest dwelling to the site is located some 670m from the nearest point of the proposed poultry buildings and beyond the distance where dust problems can occur.

Residual Impact

10.5 None. The application site is beyond the distance threshold where dust problems can occur.

Summary

10.6 The poultry buildings are located 670m from the nearest sensitive receptor which is well beyond the distance where dust problems can occur.

CHAPTER 11

11. AMMONIA DEPOSITION

Baseline Conditions

11.1 Poultry units have the potential to cause adverse impacts to sites of nature conservation importance, such as SSSI's and local wildlife sites. A pre-application consultation with the Environment Agency has been undertaken with regard to Ammonia Deposition and the Environment Agency have undertaking Ammonia Screening for the proposed development. A copy of the Environment Agency Screening is shown at **Appendix 5**.

Assessment

11.2 This screening assessment has considered any Special Areas of Conservation (SAC), Special Protection Areas (SPA) and Ramsar sites within 10km; 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 farm.

11.3 We have used the Environment Agency's Ammonia Screening Tool (AST v4.2) to assess the impact of your proposal at those sites identified within the above distance criteria.

11.4 The EA have applied a two stage screening criteria to the ammonia screening tool results: For SAC, SPA, Ramsar and SSSIs the screening assessment has taken into account other intensive farms that could act in combination with the proposal. Where the ammonia screening tool predicts that emissions of ammonia or ammonia deposition (nutrient nitrogen or acid) will be <Y% of the relevant Critical Level or Critical Load, the proposal screens out of the requirement for an ammonia assessment.

Mitigation

11.5 None proposed.

Residual Impact

11.6 None. The proposal complies with the Environment Agency's Environmental Protection Regulations thresholds for ammonia and nitrogen deposition.

Summary

11.7 The proposed development has been assessed by the Environment Agency for ammonia and nitrogen deposition levels. In terms of the EA criteria for significant effects, the proposals screen out and no further study is required.

12. ECOLOGY

Introduction

12.1 Craig Emms was commissioned by Ian Pick Associates to undertake an Extended Phase 1 Habitat Survey on the application site. The full assessment is shown at **Appendix 6**.

Survey Summary

12.2 The site is part of a farm located in Lincolnshire approximately 5 km south of Spalding Market Town. It is mainly surrounded by open arable land and includes ten existing poultry rearing units. The site is to be developed with the addition of six more poultry rearing units. The site and its immediate surroundings were surveyed for their ecological interest through a desk study and Extended Phase 1 Habitat Survey.

12.3 Habitats on the site include existing buildings, short ephemeral/perennial vegetation, an attenuation pond, grassland, arable land, tall herb, a dry ditch and a hedgerow. There are no other ponds on or within 250m of the site. The survey revealed that the site as a whole is not of sufficient ecological value to warrant whole-scale protection from development. The site's habitats which will be affected by works are common and widespread and are considered to be of low intrinsic biodiversity value. It is recommended that no further ecological surveys are required.

12.4 Recommendations which will reduce the risk of harm to any wildlife in the lead up to construction on the site and during the development itself are provided.

13. LANDSCAPE ASSESSMENT

Baseline Conditions

13.1 The proposed site comprises one large arable field on the south side of existing poultry units. The field is bound by a drainage ditch on the north boundary but is otherwise open.

Assessment

13.2 A full landscape and visual impact assessment has been provided by ACD Landscape Architect in connection with this proposal and is attached at **Appendix 7** to this statement.

13.3 ACD were instructed to undertake a landscape and visual impact assessment for proposed poultry units, located at Deeping Poultry Farm, Main Rd, Deeping St Nicholas, by Ian Pick Associates Ltd in October 2016. The site and its surrounding landscape were assessed and a total of six viewpoints were selected to represent a variety of receptors in the surrounding area.

13.4 The aim of this report is to provide a summary assessment of the potential landscape and visual effects of the proposed development upon the receiving landscape, in line with current legislation and guidance. It comprises two separate, but closely related and interlinked assessments, the first for landscape and the second for visual effects.

13.5 The proposed site comprises one large arable field on the south side of existing poultry units. The field is bound by a drainage ditch on the north boundary but is otherwise open. The proposed units will be located in the northern section of the field. The site lies approximately 0.75km to the east of the nearest settlement along the A1175 at Deeping St Nicholas, with further residential properties lying beyond 1km to the north, east and south. There are no PRoW's within the immediate site context up to 1km.

13.6 Given the nature of the local landscape, comprised of large scale agricultural land uses and existing industrial elements, the proposed scheme would not be out of character with its surroundings when considered as part of the wider landscape. The proposal would not provide a significant additional intrusion into key views from nearest sensitive receptors including local settlements.

13.7 Six viewpoints were considered and none were considered to be significant. These viewpoints are located at the nearest publically accessible points to the proposed site.

13.8 With the implementation of a successful mitigation strategy, the overall impact is considered to have a minor/negligible effect on the surrounding landscape character and a minor visual impact. These are both considered not significant. It should be considered that this type of development is not out of character within the receiving landscape.

Summary

13.9 With the implementation of a successful mitigation strategy, the overall impact on the landscape is considered to have a negligible overall effect on the surrounding landscape character and visual impact. It should be considered that this type of development is not out of character within the receiving landscape. Six viewpoints were considered and of these, none were considered to be significant.

14. TRANSPORT & ACCESS

Baseline Conditions

14.1 The application site is currently an established poultry unit with direct access onto the A1175. The existing access is located on a straight section of the A1175 and provides in excess of 2.4m x 215m visibility splays in both directions.

The Proposed Development

14.2 The proposed development of the additional poultry unit will create HGV traffic associated with bedding delivery, chick delivery, feed delivery, finished bird removal, manure removal, dirty water removal, fuel delivery and carcass collection.

14.3 Commercial and HGV traffic generation associated with the existing and proposed development is shown on the table below.

Activity	**Vehicle Type**	**Existing Frequency**	**Proposed Frequency**
Bedding Delivery	16.5m HGV	2	4
Chick Delivery (1)	16.5m HGV	6	10
Feed Delivery	16.5m HGV	43	79
Bird Removal	16.5m HGV	53	99
Manure Removal	16.5m HGV	15	27
Dirty Water Removal	HGV Tanker	10	18
Fuel Delivery	16.5m HGV	7	12
Carcass Collection	7.5 tonne rigid Lorry	5	5
Total Per Flock		**141 (282 movements)**	**254 (508 movements)**
Total Per Annum (7.5 flocks)		**1058 (2116 movements)**	**1905 (3810 movements)**

14.4 Total commercial traffic associated with the existing and proposed development development in combination equates to 1905 HGV / commercial vehicle visits per annum (3810 movements).

14.5 During the normal operations of the site, commercial traffic generation is limited to 4 – 6 HGV movements per day for feed / fuel deliveries / carcass collections. Over the 48 day cycle, peak movements are created on the following days.

Day 1 = 10 No. HGV' s (20 movements for chick delivery)
Day 30 & Day 31 = 17 - 18 No. HGV's per day (34 - 36 movements for removal of thinning birds).
Day 36, 37 & 38 = 21 – 22 No. HGV's per day (42 – 44 movements for final clearance of birds).
Day 39 & 40 = 13 – 14 No. HGV's per day (26 – 28 movements for manure removal).
Day 41 & 42 = 9 No. tankers per day (18 movements for dirty water removal)

14.6 At is peak on days 36, 37 and 38 of the flock cycle, the development will create a maximum of 44 movements. These movements are staged at no more than 2 movements per hour over any 24 hour period.

14.6 The routing of traffic associated with development is detailed below:

Chick Delivery – Origin: Ashbourne – Route A52, A1, A151, A15, A1175

Feed Delivery – Origin: Billinghay Feed Mill – Route A153, A17, A16, A1175.

Bird Removal – Destination: Anwick, Sleaford – Route A1175, A16, A17, A153.

Manure Removal – Destination: FibroThetford – Route A1175, A16, A151, A17, A134.

14.7 In addition to the commercial traffic generated by the development, the proposal will involve the employment of 3 additional full time workers, creating to 6 movements per day by private car.

Residual Impacts

14.8 The proposed development represents an increase in traffic associated with the poultry farm of approximately 1694 movements per annum.

Summary

14.10 The commercial traffic generation associated with the proposed development in combination with the existing poultry farm amounts to total commercial vehicle movements of 1905 visits (3810 movements) per annum. The traffic associated with the proposed development can be easily accommodated within

the highway network. The increase in traffic generated by the proposed development amounts to negligible significance.

15. DETAILS OF CONSULTATION

15.1 Consultation has been undertaken with the Environment Agency as part of the development proposal with regard to the variation of the IPPC permit.

16. NON TECHNICAL SUMMARY

16.1 The description of development is for the erection of 6 additional poultry units for broiler rearing. The proposed development involves the erection of 6 No. poultry buildings, together with associated feed bins and control rooms. The proposed poultry buildings extend to 109.729m x 24.389m and will each house 56833 broiler chickens with 341,000 additional birds proposed on the site in total.

16.2 The assessment of plant noise impact from the proposed poultry units demonstrates that the proposal will not harm the living conditions of neighbouring residential properties.

16.3 The result of the odour assessment concludes that the proposed development in combination with the existing units will not exceed the Environment Agency threshold of 3 odour units at any sensitive receptor, therefore there will be no appreciable loss of amenity at any of the neighboring dwellings. The highest odour exposure predicted at any dwelling outside the control of the applicants is 2.50 European Odour Units at the 98th percentile.

16.4 The application site is located 670m from the nearest sensitive receptor and this is beyond the distance where dust problems can occur. The DEFRA research project confirmed that particulate matter returned to normal background levels at a distance of 100m from the poultry buildings.

16.5 The site is located within a flood risk area and the FRA confirms acceptability of the proposal in terms of flood risk. The proposed drainage system will utilise an attenuated system and thus removes the potential for peak flow runoff from the site. Washout water and manure collection systems negate any potential for environmental consequences.

16.6 Ammonia and nitrogen deposition assessments have been carried out and these demonstrate that the proposal is acceptable in terms of impact on sites of nature conservation importance in accordance with the Environmental Permitting Regulations.

16.7 In terms of ecological impact, the site does not support a rich and diverse habitat and the ecological survey concludes that the proposed development is unlikely to impact upon any protected species or associated habitats.

16.8 The traffic generation associated with the proposed development represents an increase amounting to an average of less than 3 commercial vehicles / HGV vehicles per day, and amounts to negligible significance.

16.9 Landscape and visual impact assessment has been undertaken in accordance with the requirements of Guidelines for Landscape and Visual Impact Assessment 3. The scale and nature of the development will have a low landscape character sensitivity and the magnitude of change can be considered small. Therefore the Landscape effects are assessed as negligible.

16.10 In conclusion, the proposed expanded poultry unit at Deeping Poultry Farm will not produce any significant Environmental Impacts.

Ian Pick BSc (Hons) MRICS,
December 2016.