IAN PICK ASSOCIATES LTD.
SPECIALIST AGRICULTURAL AND RURAL PLANNING CONSULTANTS

ENVIRONMENTAL STATEMENT

PROPOSED PIG UNIT REDEVELOPMENT AT NEW HOUSE FARM, CHESTER ROAD, CHETWYND, NEWPORT, SHROPSHIRE, TF10 8BN

ME FURNISS AND SONS

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CHAPTER 1.

INTRODUCTION

1.1 This Environmental Statement has been commissioned by M E Furniss and Sons to accompany a planning application for the proposed pig unit redevelopment at New House Farm, Chester Road, Chetwynd, Newport, Shropshire, TF10 8BN.

1.2 The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 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 17b provides for mandatory EIA with all proposals which exceed 3000 production pigs (over 30kg).

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 23 years' experience specialising in agricultural and rural planning whilst employed by MAFF, ADAS, Acorus and most recently, Ian Pick Associates Limited. Ian Pick has specialised in planning applications and Environmental Impact Assessment for intensive livestock units since 2006. During the period 2006 to date, Ian Pick has prepared 138 Environmental Statements for Intensive Livestock Units.

1.5 Copies of this Environmental Statement are available from Ian Pick Associates Ltd for the sum of £50 for a paper copy, and £10 for a CD copy.

CHAPTER 2.

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 2017. 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 3000 production pigs as defined in Section 17 part (b).

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. In this instance, EIA is mandatory under Schedule 1 of the 2017 EIA regulations and therefore a screening opinion was not required.

Scoping

2.4 An application for a scoping opinion was submitted to Telford and Wrekin Council in December 2020 (EIA/2020/0010). A copy of the Scoping Opinion is enclosed at Appendix 1. This Environmental Impact Assessment provides the following scope of assessment, as per the scoping opinion.

- Ecology and Nature Conservation, including ammonia impact assessment.
- Amenity – Noise and Air Quality
- Flood Risk and Surface Water Management

Subjects Scoped Out

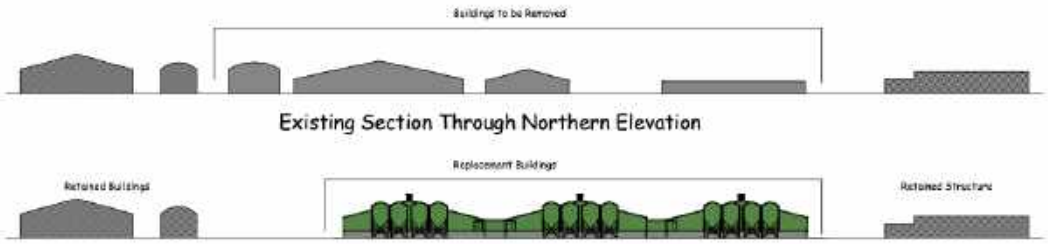
Heritage Impacts

2.5 The potential for impact on the setting Heritage Assets was raised by consultees on the application for the Scoping Opinion, citing the potential for impacts on the setting of a number of heritage assets including The Grade II Registered Chetwynd Park, and a number of listed buildings within the park, the Grade II listed Church of St Michael and All Angels, and Chetwynd Grange to the west.

2.6 When considering Heritage Impacts and impacts on the setting of listed buildings, the nature of the development needs to be taken into account. Essentially, the proposals involve demolishing existing livestock buildings of a similar size and scale, centrally within the existing build development of the farmyard. Due to existing buildings which are to be retained, views into the site from the south, east and west are completely blocked by existing farm buildings which will be retained as part of the development. The Heritage Assets of the Grade II listed Chetwynd Park, listed buildings within Chetwynd Park and the Grade II listed church of St Michael and All Angels are all located to the east of the application site. Due to the presence of existing farm buildings and the farmhouse at New House Farm, there is no intervisibility of the development site from any part of Chetwynd Park, or from the Grade II listed Church of St Michael and All Angels. Similarly, Chetwynd Grange is to the west of the application site, and views of the proposed development from Chetwynd Grange are block by the presence of the existing Anaerobic Digester Plant, with no intervisibility between the development and Chetwynd Grange.

Landscape and Visual Impacts

2.7 Due to the nature or the development being redevelopment of the existing pig unit through demolition and rebuild on the same footprint, the landscape and visual impacts of the development are negligible. Due to the presence of existing, retained buildings, views into the site are completely blocked by existing agricultural buildings from the east, west and south. The only change into view into the site is from the A41 from the north, where the existing northern elevation of the farm will be subject to a minor change in profile, as depicted in the section drawing below. Given the nature of the proposals, landscape and visual impacts are scoped out.



Farm Waste Management

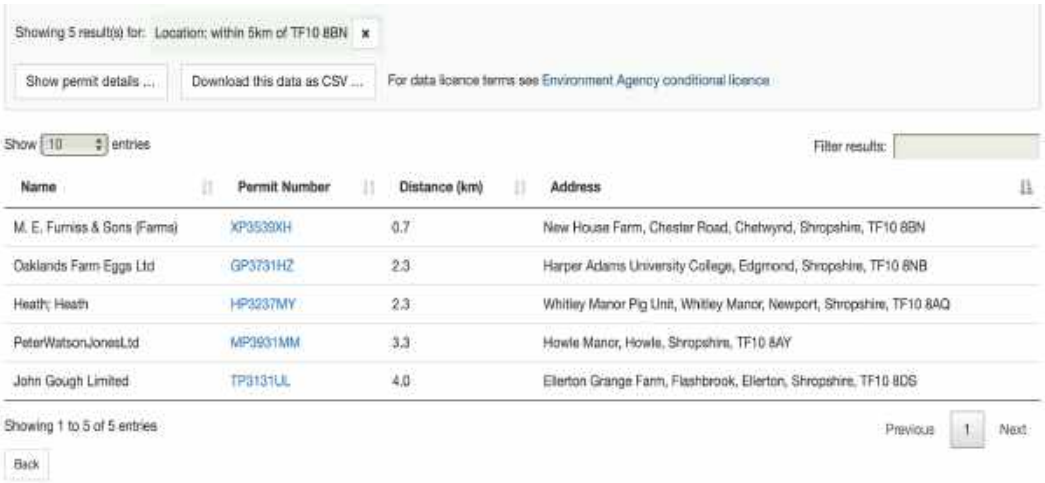
2.8 New House Farm operates an existing anaerobic digester plant which is utilised for processing of slurry and manures currently produced on the farm. There will be no change to farm waste management practices on the farm as a result of this development, with all slurry produced being processed through the existing AD facility.

Cumulative Impacts

2.9 The majority of environmental impacts of intensive livestock units, for example, odour, noise and dust are very localised, and limited to an area extending up to no more than 500m from the site boundary.

2.10 Cumulative impacts, such as ammonia and nitrogen deposition, are required to be considered in certain bespoke circumstances if a development is not classed as insignificant alone. This proposal is one of redevelopment of an existing operational pig farm. The ammonia modelling prepared as part of this Environmental Impact Assessment demonstrates that the proposals represent a significant reduction (betterment) in ammonia and nitrogen deposition associated with the development, and as such in combination ammonia impacts with other plans and projects have not been considered.

2.11 A review of the databases of Environmental Permitting, Telford and Wrekin Planning have revealed the following intensive livestock units within a 5km search radius. A radius of 5km has been used in order to provide a robust assessment, notwithstanding the fact that the impacts of the development are far more localised.



Showing 5 result(s) for: Location: within 5km of TF10 8BN ×

Show permit details ... | Download this data as CSV ... | For data licence terms see Environment Agency conditional licence

Show 10 entries | Filter results:

Name	Permit Number	Distance (km)	Address
M. E. Furniss & Sons (Farms)	XP3539XH	0.7	New House Farm, Chester Road, Chetwynd, Shropshire, TF10 8BN
Oaklands Farm Eggs Ltd	GP3731HZ	2.3	Harper Adams University College, Edgmond, Shropshire, TF10 8NB
Heath; Heath	HP3237MY	2.3	Whitley Manor Pig Unit, Whitley Manor, Newport, Shropshire, TF10 8AQ
PeterWatsonJonesLtd	MP3931MM	3.3	Howle Manor, Howle, Shropshire, TF10 8AY
John Gough Limited	TP3131UL	4.0	Ellerton Grange Farm, Flashbrook, Ellerton, Shropshire, TF10 8DS

Showing 1 to 5 of 5 entries | Previous 1 Next

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Search Results for Intensive Livestock Environmental Permits within 5km of New House Farm taking from the Environment Agency Environmental Permitting online search tool.

2.12 The Environmental Permit search above shows there to be 5 Environmental Permits for intensive livestock units within 5km of the application site (the application site, plus 4 other permits), with the closest being Harper Adams University College, located 2km to the south west.

2.13 A further search of the Telford and Wrekin Councils planning database did not reveal any current plans or projects for intensive livestock units within a 5km radius.

2.14 Chetwynd Grange, located 1km to the west is operated as a straw based pig rearing and finishing unit and has 1980 pig places.

2.15 The existing and proposed intensive livestock units listed above have been considered in combination with the proposals at New House Farm within Chapter 8 of this Environmental Statement.

Assessment and Reporting Methodology

2.16 Following identification of potential environmental effects through the EIA scoping process, 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 Appendices to the Environmental Statement.

The Environmental Statement

2.17 The Environmental Statement has been prepared to accompany an application for planning permission for the erection of 3 No. linked pig rearing and finishing units at New House Farm, Chester Road, Chetwynd, Newport, Shropshire, TF10 8BN. The application has been submitted to Telford and Wrekin Council under the terms of the Town and County Planning Act 1990.

2.18 The Town and Country Planning (Environmental Impact Assessment) Regulations 2017, Schedule 4, requires that an Environmental Statement should include at least the following information:

- A description of the development including:
  - A description of the location of the development
  - A description of the main characteristics of the whole development and the land use requirements during the construction and operational phases.
  - A description of the main characteristics of the operational phase of the development (in particular any production process)
  - An estimate by type and quantity, of expected residues and emissions.
- A description of the reasonable alternatives studied by the developer which are relevant to the proposed project and its specific characteristics, and an indication of the main reason for selecting the chosen option.
- A description of the current state of the environment (baseline scenario)
- A description of the factors likely to be significantly affected by the development.
- A description of the likely significant effects of the development on the environment resulting from
  - The construction and existence of the development
  - The use of natural resources, in particular land, soil, water and biodiversity.
  - The emission of pollutants, noise, vibration, light, heat and radiation, the creation of nuisances, and the disposal and recovery of waste.
  - The risks to human health, cultural heritage or the environment
  - The accumulation of effects with other existing and / or approved projects.

  - The impact of the project on the climate and and vulnerability of the project to climate change
  - The technologies and substances used
- A description of the forecasting methods or evidence used to identify and assess the significant effects on the environment including any difficulties encountered compiling the required information.
- A description of the measures envisaged to avoid, prevent, reduce or, if possible offset any identified significant adverse effects on the environment. That description should explain the extent to which significant adverse effects on the environment are avoided, prevented, reduced or offset, and should cover both the construction and operational phases.
- A description of the expected significant adverse effects of the development on the environment deriving from the vulnerability of the development to risks of major accidents and / or disasters which are relevant to the project concerned. Where appropriate, this description should include measures envisaged to prevent or mitigate the significant adverse effects of such events on the environment and details of the preparedness for and proposed response to such emergencies.
- A non-technical summary of the above.

Contributors to the Environmental Statement

2.19 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. Choice of Location	IPA Ltd
5. Planning Policy Context	IPA Ltd
6. Potential Environmental Effects	IPA Ltd
7. Ecology and Nature Conservation, including Ammonia Impact Assessment	LVIA Ltd, IPA Ltd
8. Amenity, Noise and Air Quality	AS Modelling and Data Matrix Acoustics
9. Flood Risk and Drainage	Alan Wood and Partners
Non Technical Summary	IPA Ltd

CHAPTER 3.

3. DESCRIPTION OF DEVELOPMENT

Background Information

3.1 New House Farm, Chester Road, Chetwynd is an existing, operational pig breeding, rearing and finishing unit which is owned and operated by M E Furniss and Sons. The existing piggery is permitted by the Environment Agency to accommodate 450 sows, 2040 weaners up to 30kg and 3060 production pigs over 30kg (Permit Number XP3539XH).

3.2 New House Farm also includes an Anaerobic Digester Plant which was commissioned on 5th November 2014 and provides 416kw of renewable energy generation and uses agricultural commodities and wastes as a feed stock. The AD plant currently processes the slurry produced by the existing pig breeding unit.

3.3 The existing piggery operation are New House Farm is now dated and inefficient, and the applicants propose cease the current pig breeding operations, demolish a number of the existing buildings, and erect a new purpose-built pig finishing unit which will house 6,000 production pigs.

Project Description

3.2 The proposed development involves the erection of 3 No. linked livestock buildings, together with a lairage, loading ramp, site office and 12 No. feed bins. The development provides 5100 sq m of new floor space and will provide accommodation for up to 6,000 pigs, which will be reared from 40kg through to 110kg.

3.3 The use of the proposed buildings will be for the rearing and finishing of pigs from 40kg through to 110kg on a contract basis with White Rose Farms. Weaners at 40kg will be delivered to the site and reared within the buildings for 14 weeks when they reach 110kg finished weight, at which time to they will be removed from the site for processing. The site will operate on a continuous basis, with the buildings stocked on a room-by-room basis. Each building contains four rooms, and each room will accommodate 500 pigs, with 2,000 pig places within each building.

3.4 The buildings are purpose built, state of the art, piggeries. The buildings are constructed from a steel portal frame. The wall cladding is concrete for the lower part, and insulated composite panels for the upper part. The roof of the buildings will be clad with fibre-cement sheeting. Each building includes 12 No. high speed roof fans which provide ventilation and cooling for the livestock.

3.5 Internally, each building is subdivided into four rooms, each accommodating 500 pig places. Internal equipment includes divisions, feeders and drinkers. The feed system is an automated auger fed feeding system which delivers feed

from the proposed feed bins to the feed troughs located within each pen. Water is supplied by nipple drinkers.

3.6 The lower part of the building comprises a concrete tank constructed from concrete and this tank provides temporary slurry holding capacity underneath the floor of the building. The pen floors are perforated and allow the slurry generated by the pigs to drop through into the under floor holding tanks.

3.7 The floors of the buildings will be linked by a vacuum system for frequent removal of slurry into the existing on-site slurry store which is to be retained as part of the project.

3.8 All slurry generated by the development will be processed through the on-site Anaerobic Digester Plant. This represents no change to the existing situation with regard to slurries and manures produced in the existing pig unit.

3.9 The location of the development is shown on the location plan at **Appendix 2**. The proposed site layout is shown in the image below.

Image 1. Site Layout Plan.

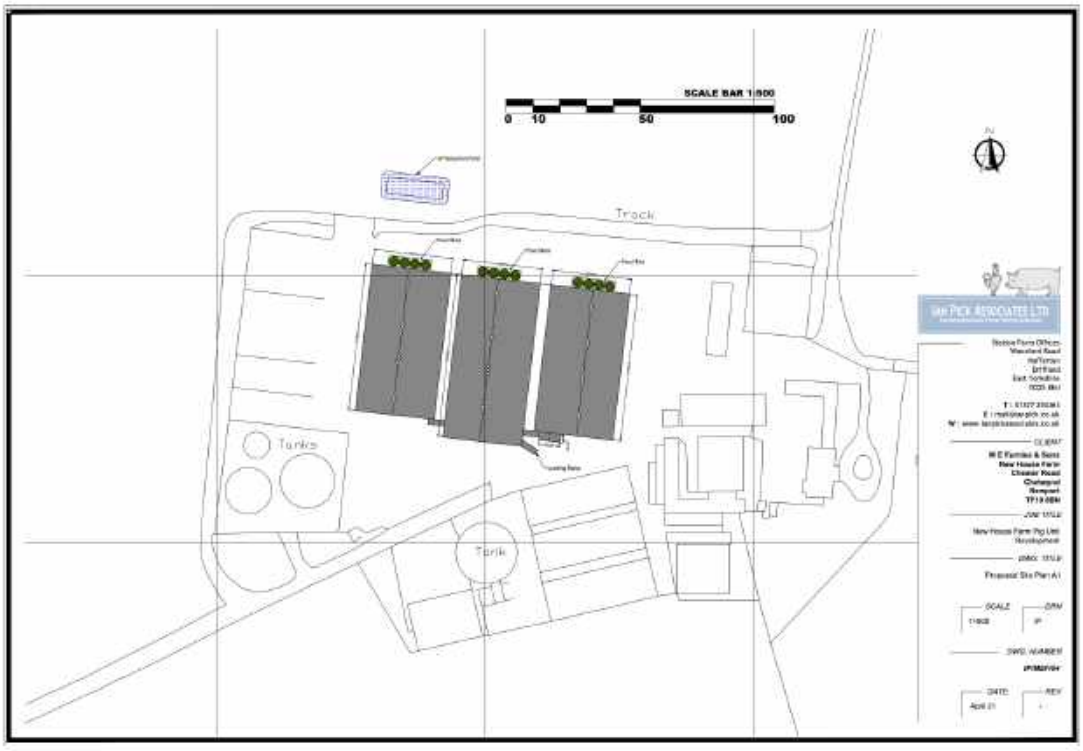


Image 2. Elevation Drawing.

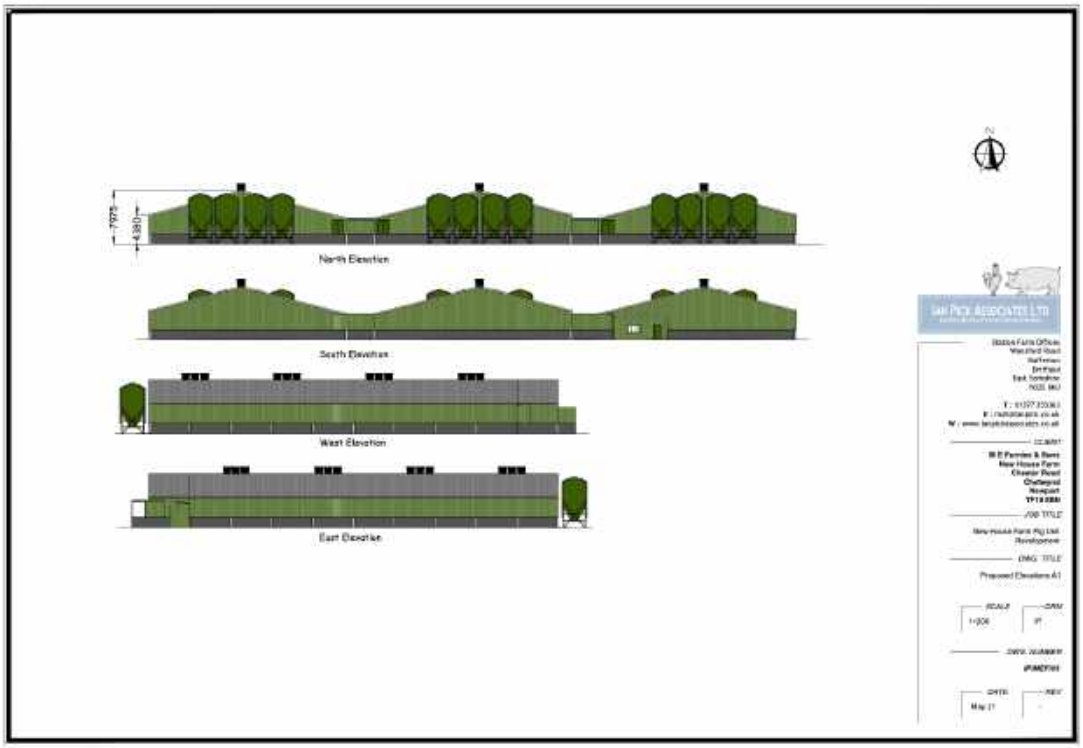
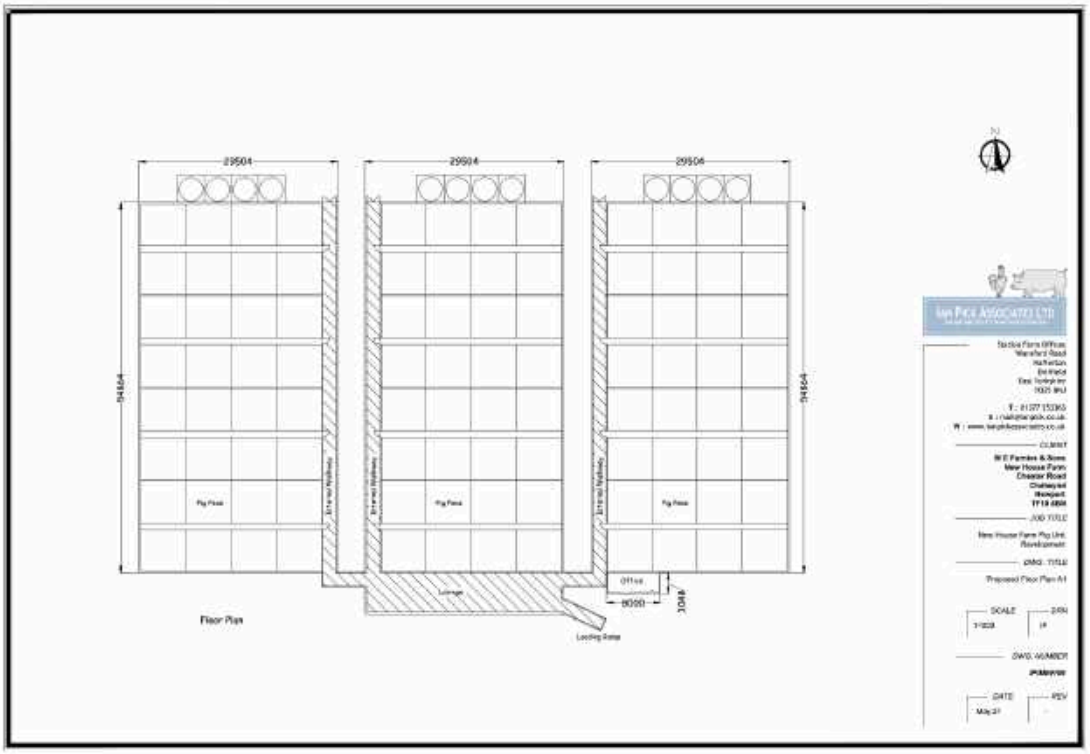


Image 3. Floor Plans



Mitigation within the Project Design

3.10 Mitigation is inherent within the project design. The proposal is for the development of a pig finishing unit and requires an Environmental Permit in order to operate which is issued by the Environment Agency. The requirements of the EP insist on the site being designed to Best Available Techniques (BAT). The proposed include high speed roof fans which are deemed best available techniques for the dispersal of odour and ammonia. The proposals will also be fitted with a vacuum system for frequent removal of slurry into the existing on-site slurry store.

3.11 The hydrological assessment identifies a requirement for surface water drainage to be attenuated to a greenfield runoff rate, and a Sustainable Urban Drainage System (SuDS) is incorporated into the design in the form an attenuation pond.

Potential for Accidents

3.12 The proposed development of the pig farm offers very limited potential for accidents which could impact on the environment. Failure of the slurry containment tanks could potentially create environment impacts in terms of pollution of groundwater, however, the tanks are of a robust concrete design to prevent any potential for failure.

3.13 Failure of the automated environmental control systems within the building have the potential to create problems for animal welfare if not rectified promptly, however, such as failure would not impact on the external environment.

Climate Change

3.14 Schedule 4 of the 2017 requires at 5(f) requires the ES to include a description of the likely significant effects of the development on climate and the vulnerability of the project to climate change. Mitigation for climate change is factored into the sustainable drainage design of the proposals which includes the appropriate additional capacity for climate change within the designed system.

Construction Phase

3.15 The construction phase of the proposed development will extend to approximately 30 weeks and will involve an average of 8 construction workers on site during the construction process. This phase involves the following elements.

- Demolition of existing buildings and site preparations
- Importation of stone, levelling and compacting to create a sub-base.
- Construction of the concrete under floor slurry containment tank
- Erection of steelwork and cladding
- Fitting out of the buildings and installation of equipment.

3.16 The construction of the development will require the following estimated volumes of materials: Concrete: 1250m^3; Steel Framework: 120 tonnes; Steel Sheeting: 128 tonnes; Timber: 80 tonnes.

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

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

Characteristics and Production Processes

3.19 The use of the proposed buildings is for the rearing and finishing of pigs from 40kg through to 110kg.

Expected Residues and Emissions

3.20 The proposed pig farm requires a permit under the Environment Agencies Environmental Permitting regime.

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

- Airbourn emissions in the form of odour, ammonia and nitrogen
- Noise emission from mechanical plant.
- Production of slurry.

Forecasting Methods

3.22 The forecasting methods used within this assessment are detailed within the individual chapters and assessments.

- Ecology Issues are assessed using the methodology contained within Handbook for Phase 1 habitat survey: a technique for environmental audit (Joint Nature Conservation Committee, 2010) and the current guidance on survey methods from the Chartered Institute of Ecology and Environmental Management (Guidelines for Preliminary Ecological Appraisal. CIEEM, 2012). The Habitat Suitability Index was calculated following ARG UK advice note 5 (Amphibian and Reptile Groups of the United Kingdom, 2010).
- Ammonia is assessed based on guidance within Environment Agency H1 Risk Assessments.
- Noise is forecast using BS4142:2014.
- Odour Assessment is forecast based on Environment Agency Environmental permitting guidance for odour modelling - Environment Agency H4 Odour Management Guidance 2011 and IAQM Guidance.
- The Site Specific Flood Risk Assessment is based on the Guidance within paragraph 163 of the NPPF, and footnote 50.

Assessment of Significance of Environmental Effects

3.23 In terms of the potential environmental effects, these have been assessed in accordance with the significance criterion outlined below. The assessment of significance within each subject chapter of the Environmental Statement has been informed corresponding technical assessment within the Appendices. The criteria outline below has been used as a bespoke criterion for the assessment of impacts from intensive farming installations.

None	**The development will not produce any effects beyond those which may be experienced within the current farming regime.**
Low	**There will be an effect, however this will be localised and will not impact on environmental and other features to their detriment when relating to existing uses (e.g. distance too far)**
Medium	**There will be an effect which will impact on environmental features, but not significantly.**
High	**A significant effect.**
Positive	**Has a benefit.**

CHAPTER 4.

4. CHOICE OF LOCATION / ALTERNATIVE SITES

4.1 The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 require an Environmental Statement to cover reasonable alternatives studied by the applicants. If alternative sites have been considered, there is a requirement to report those locations within the Environmental Statement. If this instance, alternative locations have not been considered for specific reasons as highlighted below.

- The proposal is one of redevelopment of an existing, operational pig breeding, rearing and finishing unit which is dated and inefficient. The purpose of the proposals is to replace the existing use with modern state of the art pig finishing units.
- The site is an existing piggery and holds an Environmental Permit for the use.
- The development is located on the same footprint as the existing pig unit.
- The site also includes an existing anaerobic digester for processing of the manures and slurries produced on the farm.
- The site has good access to the A41 for HGV transport.
- The site is remote from settlements and protected dwellings.

CHAPTER 5.

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 8 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 80 and 81 set the Governments position on economic growth, as detailed below:

80. Planning policies and decisions should help create the conditions in which businesses can invest, expand and adapt. Significant weight should be placed on the need to support economic growth and productivity, taking into account both local business needs and wider opportunities for development. The approach taken should allow each area to build on its strengths, counter any weaknesses and address the challenges of the future. This is particularly important where Britain can be a global leader in driving with high levels of

productivity, which should be able to capitalise on their performance and potential.

81. Planning policies should:

a) set out a clear economic vision and strategy which positively and proactively encourages sustainable economic growth, having regard to Local Industrial Strategies and other local policies for economic development and regeneration;

b) set criteria, or identify strategic sites, for local and inward investment to match the strategy and to meet anticipated needs over the plan period;

c) seek to address potential barriers to investment, such as inadequate infrastructure, services or housing, or a poor environment; and

d) be flexible enough to accommodate needs not anticipated in the plan, allow for new and flexible working practices (such as live-work accommodation), and to enable a rapid response to changes in economic circumstances.

5.5 Paragraph 83 provides support for economic growth in rural areas, as detailed below:

83. Planning policies and decisions should enable:

a) the sustainable growth and expansion of all types of business in rural areas, both through conversion of existing buildings and well-designed new buildings;

b) the development and diversification of agricultural and other land-based rural businesses;

5.6 Paragraph 183 refers to developments where a separate Environmental Permit is required in terms of the operation of the site.

183. The focus of planning policies and decisions should be on whether proposed development is an acceptable use of land, rather than the control of processes or emissions (where these are subject to separate pollution control regimes). Planning decisions should assume that these regimes will operate effectively. Equally, where a planning decision has been made on a particular development, the planning issues should not be revisited through the permitting regimes operated by pollution control authorities.

Local Planning Policy – *Telford and Wrekin Local Plan 2018.*

5.7 Policy EC3, Employment in the rural area confirms that the Council will support new employment development in the rural area where it involves the re-use of previously developed land or the conversion/re-use of redundant buildings or the extension of existing sites where:

i. Development relates to agriculture, forestry or assists in the diversification of the rural economy;
ii. The local highway network is capable of accommodating the traffic generated by the proposed development; and
iii. The proposal is supported by an appropriate business case which demonstrates that the proposal will support the local economy and help sustain rural communities.

CHAPTER 6.

6. POTENTIAL ENVIRONMENTAL AFFECTS

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

6.2 The scope of the Environmental Statement is detailed below:

- Ecology and Nature Conservation, including Ammonia Impact Assessment
- Amenity, Noise and Air Quality
- Drainage and Flood Risk

Scope of the Assessments

Ecology

6.3 Ecology is discussed within the Chapter 7, and the associated Phase 1 Habitat Survey at ***Appendix 3.***

6.4 The scope of the ecological assessment relates to the full development described in Chapter 3. The site was surveyed following the methodology contained in the Handbook for Phase 1 habitat survey: a technique for environmental audit (Joint Nature Conservation Committee, 2010) and the current guidance on survey methods from the Chartered Institute of Ecology and Environmental Management (Guidelines for Preliminary Ecological Appraisal. CIEEM, 2012). The Habitat Suitability Index was calculated following ARG UK advice note 5 (Amphibian and Reptile Groups of the United Kingdom, 2010).

Ammonia Impacts

6.5 Ammonia Impacts are discussed within Chapter 7, and the associated Ammonia Impact Assessment at **Appendix 4**. The ammonia assessment is based on the impacts of the existing and proposed pig farming operations at New House Farm. The ammonia impact assessment has been prepared in accordance with the Environment Agency H1 Risk Assessments.

Amenity, Noise and Air Quality

6.6 Noise is discussed in Chapter 8, and within the Noise Impact Assessment at **Appendix 5**. The scope of the noise assessment includes all potential noise sources arising from the operation of the proposed development described in Chapter 3, including plant in the form of the mechanical ventilation systems and livestock noise. The assessment has been prepared in accordance with BS4142:2014.

6.7 Odour is discussed in Chapter 8, and within the Odour Impact Assessment at **Appendix 6**. The odour assessment is based on the existing and proposed

impacts of the operation of the piggery. The odour impact assessment has been prepared in accordance with the Environment Agency H4 Odour Management Guidance 2011 and IAQM Guidance.

Flood Risk and Drainage

6.11. Flood Risk and Drainage are considered within Chapter 9, and within the Flood Risk and Surface Water Management Report at ***Appendix 7***. The Site Specific Flood Risk Assessment is based on the Guidance within paragraph 163 of the NPPF, and footnote 50.

CHAPTER 7

7. ECOLOGY AND NATURE CONSERVATION, INCLUDING AMMONIA IMPACT ASSESSMENT

Baseline Conditions

7.1 This section should be read in conjunction with the Preliminary Ecological Appraisal at **Appendix 3** which has been undertaken on the site to determine baseline ecological conditions on the site. The Preliminary Ecological Assessment relates to the full development as described in Chapter 3. The site is part of a farm and is for the most part, surrounded by arable land. Habitats on and adjacent to the site include buildings, arable land, grassland, tall ruderal herb and hedgerows. There are no ponds on the site and one pond within 500m of the site.

7.2 The site was surveyed following the methodology contained in the Handbook for Phase 1 habitat survey (Joint Nature Conservation Committee. 2010. *Handbook for Phase 1 habitat survey: a technique for environmental audit*. JNCC, Peterborough, UK) and the current guidance on survey methods from the Chartered Institute of Ecology and Environmental Management (CIEEM. 2012. *Guidelines for Preliminary Ecological Appraisal*. CIEEM, Winchester, UK). The Habitat Suitability Index for great crested newts was calculated following ARG UK advice note 5 (Amphibian and Reptile Groups of the United Kingdom, 2010).

7.3 The Phase 1 Habitat Survey provides evidence that the site is not as a whole of sufficient ecological value to warrant whole-scale protection from the development. The sites habitats which will be affected by the works are common and widespread and are considered to be of low intrinsic biodiversity value.

The Development Proposal

7.4 The development proposal will introduce an intensive poultry farming operation onto the site. The ecological assessment provided at **Appendix 3** confirms that the application site itself is of low intrinsic biodiversity value.

7.5 Intensive farming enterprises have the potential to create increased levels of ammonia and nitrogen within the atmosphere in the locality, which can in turn create negative impacts on sites of nature conservation importance, for example, Special Areas of Conservation (SAC's), Sites of Special Scientific Interest (SSSI), Ancient Woodlands and Local Wildlife Sites. A detailed ammonia assessment is provided at **Appendix 4** which should be read alongside this section.

7.6 There are no Local Wildlife Sites (LWSs) or Ancient Woodlands (AWs) within 2 km (the normal screening distance for non-statutory sites) of the farm. There are six Sites of Special Scientific Interest (SSSIs) within 10 km, one of

which is also designated as a Ramsar site. The receptors considered are detailed below.

- Aqualate mere SSSI/Ramsar - Approximately 2.9 km to the east-south-east - The mere and its surrounds form a complex of open water, fen, grassland and woodland unrivalled in Staffordshire for the variety of natural features of special scientific interest.
- Newport Canal SSSI - Approximately 2.2 km to the south-east - A length of about 2 km of disused canal which is one of the best localities for aquatic plants in Shropshire. There is a range of submerged and broad-leaved plant communities, a continuous narrow fringe of marginal swamp and, in some places, more extensive areas of fen.
- Loynton Moss SSSI - Approximately 6.4 km to the north-east - A largely wooded basin mire on the site of a former mere occupying a glacial kettle hole. There is a range of successional woodland and scrub communities and mixed tall fen on nutrient-rich peat, a situation unique in Staffordshire.
- Doley Common SSSI - Approximately 8.4 km to the east - A low-lying, agriculturally-unimproved pasture in the flood plain of the Doley Brook. The major interest is a nationally rare and threatened acidic marshy grassland community, which is extremely scarce in Staffordshire.
- Muxton Marsh SSSI - Approximately 7.8 km to the south - Part of a complex of habitats which have developed in an area left semi-derelict by past coal-mining. Impeded drainage caused by spoil dumping has contributed to the formation of wetland habitats here. Reclamation of derelict sites has greatly reduced the area of semi- natural vegetation in this part of Shropshire and this site is the best remaining example of unimproved grassland, fen and carr. The site also includes an area of woodland.
- Tyrley Canal Cutting SSSI - Approximately 9.2 km to the north-north-west - Designated for geological features.

7.7 An assessment of the existing and proposed ammonia impacts on local ecological sites has been completed. Tables 6a and 6b below show the results of the modelling, taking from pages 22 and 23 of the Ammonia Impact Assessment at **Appendix 4**.

Table 6a. Annual ammonia concentration and nitrogen deposition rate at the discrete receptors - detailed deposition modelling - Existing Scenario

Receptor number	X(m)	Y(m)	Name	Site Parameters			Maximum annual ammonia concentration		Maximum annual nitrogen deposition rate	
				Deposition Velocity	Critical Level (µg/m³)	Critical Load (kg/ha)	Process Contribution (µg/m³)	%age of Critical Level	Process Contribution (kg/ha)	%age of Critical Load
1	375688	320969	Aqualate Mere SSSI/Ramsar	0.03	1.0	10.0	0.068	6.8	0.53	5.3
2	376062	320142	Aqualate Mere SSSI/Ramsar	0.03	1.0	10.0	0.043	4.3	0.34	3.4
3	376401	321117	Aqualate Mere SSSI/Ramsar	0.03	1.0	10.0	0.045	4.5	0.35	3.5
4	377253	320768	Aqualate Mere SSSI/Ramsar	0.03	1.0	10.0	0.030	3.0	0.24	2.4
5	376649	319768	Aqualate Mere SSSI/Ramsar	0.03	1.0	10.0	0.027	2.7	0.21	2.1
6	377972	320374	Aqualate Mere SSSI/Ramsar	0.03	1.0	10.0	0.022	2.2	0.17	1.7
7	378838	320162	Aqualate Mere SSSI/Ramsar	0.03	1.0	10.0	0.017	1.7	0.14	1.4
8	375223	320019	Newport Canal SSSI	0.03	3.0	n/a	0.060	2.0	0.47	-
9	374554	319493	Newport Canal SSSI	0.03	3.0	n/a	0.073	2.4	0.57	-
10	373869	319444	Newport Canal SSSI	0.03	3.0	n/a	0.130	4.3	1.01	-
11	373411	319220	Newport Canal SSSI	0.03	3.0	n/a	0.133	4.4	1.04	-
12	378665	324343	Loynton Moss SSSI	0.03	1.0	10.0	0.019	1.9	0.15	1.5
13	381401	321891	Doley Common SSSI	0.03	3.0	15.0	0.010	0.3	0.08	0.5
14	371609	313589	Muxton Marsh SSSI	0.03	3.0	20.0	0.007	0.2	0.06	0.3
15	369859	330368	Tyrley Canal Cutting SSSI	0.03	n/a	n/a	0.007	-	0.05	-

Table 6b. Annual ammonia concentration and nitrogen deposition rate at the discrete receptors - detailed deposition modelling - Proposed Scenario

Receptor number	X(m)	Y(m)	Name	Site Parameters			Maximum annual ammonia concentration		Maximum annual nitrogen deposition rate	
				Deposition Velocity	Critical Level (µg/m³)	Critical Load (kg/ha)	Process Contribution (µg/m³)	%age of Critical Level	Process Contribution (kg/ha)	%age of Critical Load
1	375688	320969	Aqualate Mere SSSI/Ramsar	0.03	1.0	10.0	0.0402	4.02	0.31	3.1
2	376062	320142	Aqualate Mere SSSI/Ramsar	0.03	1.0	10.0	0.028	2.8	0.22	2.2
3	376401	321117	Aqualate Mere SSSI/Ramsar	0.03	1.0	10.0	0.030	3.0	0.23	2.3
4	377253	320768	Aqualate Mere SSSI/Ramsar	0.03	1.0	10.0	0.021	2.1	0.16	1.6
5	376849	319768	Aqualate Mere SSSI/Ramsar	0.03	1.0	10.0	0.020	2.0	0.15	1.5
6	377972	320374	Aqualate Mere SSSI/Ramsar	0.03	1.0	10.0	0.016	1.6	0.12	1.2
7	378838	320162	Aqualate Mere SSSI/Ramsar	0.03	1.0	10.0	0.012	1.2	0.10	1.0
8	375223	320019	Newport Canal SSSI	0.03	3.0	n/a	0.036	1.2	0.28	-
9	374554	319493	Newport Canal SSSI	0.03	3.0	n/a	0.039	1.3	0.31	-
10	373869	319444	Newport Canal SSSI	0.03	3.0	n/a	0.062	2.1	0.48	-
11	373411	319220	Newport Canal SSSI	0.03	3.0	n/a	0.050	1.7	0.39	-
12	378665	324343	Loynton Moss SSSI	0.03	1.0	10.0	0.013	1.3	0.11	1.1
13	381401	321891	Doley Common SSSI	0.03	3.0	15.0	0.008	0.3	0.06	0.4
14	371609	313589	Muxton Marsh SSSI	0.03	3.0	20.0	0.005	0.2	0.04	0.2
15	369859	330368	Tyrley Canal Cutting SSSI	0.03	n/a	n/a	0.005	-	0.04	-

Existing Scenario

7.8 The modelling predicts that:

7.9 The process contribution to ammonia concentrations and nitrogen deposition rates over western parts of Aqualate Mere SSSI/Ramsar site are currently in excess of the Environment Agency's lower threshold percentage (4% for internationally designated sites) of the Critical Level and the Critical Load for the site.

7.10 The process contribution to ammonia concentrations and nitrogen deposition rates over eastern parts of Aqualate Mere SSSI/Ramsar site at all other SSSIs is below the Environment Agencys lower threshold percentage (4% for internationally designated sites and 20% for SSSIs) of the relevant Critical Level and the Critical Load for the site.

7.11 There are currently exceedances of 1% of the Critical Level and/or the Critical Load over Aqualate Mere SSSI/Ramsar site, Newport Canal SSSI and Loynton Moss SSSI.

Proposed Scenario

7.12 The modelling predicts that:

7.13 The process contribution to ammonia concentrations and nitrogen deposition rates over westernmost parts of Aqualate Mere SSSI/Ramsar site would be slightly in excess of the Environment Agency's lower threshold percentage for internationally designated sites of the Critical Level and the Critical Load for the site.

7.14 The process contribution to ammonia concentrations and nitrogen deposition rates over most of Aqualate Mere SSSI/Ramsar site at all other SSSIs would below the Environment Agencys lower threshold percentage threshold (4% for

internationally designated sites and 20% for SSSIs) of the relevant Critical Level and the Critical Load for the site.

7.15 There would be exceedances of 1% of the Critical Level and/or the Critical Load over Aqualate Mere SSSI/Ramsar site, Newport Canal SSSI and Loynton Moss SSSI.

7.16 Overall, the modelling shows a substantial betterment with the proposed scenario, when compared to the proposed existing scenario.

Cumulative Impacts

7.17 Given that the proposals represent a marked improvement to ammonia and nitrogen deposition when compared to the existing situation, cumulative impacts with other plans and projects have not been considered.

Summary

7.18 The Phase 1 Habitat Survey provides evidence that the site is not as a whole of sufficient ecological value to warrant whole-scale protection from the development. The sites habitats which will be affected by the works are common and widespread and are considered to be of low intrinsic biodiversity value.

7.19 The ammonia modelling, represents a marked improvement to ammonia and nitrogen deposition to protected ecological sites when compared to the existing situation.

Assessment Level Assuming Mitigation

7.20 Mitigation is designed into the scheme through the use of the proposed air scrubbing system which is effective for scrubbing 90% of ammonia emissions from the proposed buildings. The overall assessment level based on the criteria outlined in section 3.23 of this report is **Positive – The proposal has a benefit.**

CHAPTER 8

8. AMENITY, NOISE AND AIR QUALITY

Noise

8.1 This section should be read in conjunction with the detailed noise assessment at **Appendix 5**.

Baseline Conditions

8.2 The baseline conditions have been assessed via a background noise survey which was undertaken on 22nd and 23rd April 2021 with noise meters place in close proximity to the site. The background noise survey therefore covers all current noise sources in the locality including, road traffic, and agricultural operations in the locality.

Scope of the Assessment

8.3 A detailed noise assessment has been prepared by Matrix Acoustic Design Consultants to review plant and operational noise generated from the proposed development. The assessment includes the proposed ventilation systems together with animal noise. The Acoustic Assessment at **Appendix 5** has been undertaken to BS4142:2014.

Assessment Summary

8.4 A noise survey has been conducted to determine the typical background noise levels at the nearest dwellings (A - D, Figure 1) to the proposed replacement pig units at New House Farm, Chetwynd, Shropshire.

Figure 1. Ariel view (source: www.google.com) showing footprint of proposed replacement pig units, nearest dwellings and noise monitor and weather station positions

8.5 The extract fan, auger feed pumps and general livestock noise emissions as a result of the proposed development have been assessed in accordance with BS4142:2014.

8.6 Via calculation (Appendix B) it has been demonstrated that the aggregate (ridge extract fans + auger feed pumps + general livestock) noise emissions will result in a BS4142 **low** noise impact during the day, evening and night.

8.7 On the basis that the plant and livestock noise emissions associated with the proposed development will not result in an adverse noise impact at the nearest dwellings, we conclude that on noise grounds it is acceptable.

Cumulative Impacts

8.8 The Noise Impact Assessment is based on a background noise survey undertaken on 22nd and 23rd April 2021 with noise meters positioned on close to the site to record the existing background noise levels in the locality. The noise assessment therefore takes account cumulatively of all existing noise generating activity in the locality, including road traffic and agricultural operations.

Noise Summary

8.9 The proposed development will result in a permanent effect, as the noise impacts of the development arise from the operation throughout the lifespan of the development. The noise assessment is based on BS4142: 2014 and the associated rating levels in accordance with BS4142:2014 is **low**.

Assessment Level Assuming Mitigation

8.10 Mitigation is proposed in the form of attenuators fitted to the roof extract fans. The overall assessment level based on the criteria outlined in section 3.23 of this report is **Low - There will be an effect, however this will be localised and will not impact on environmental and other features to their detriment when relating to existing uses.**

Residual Impacts

8.11 The development will have a low impact on noise conditions and will be inaudible at nearby receptors at most times.

Air Quality Assessment

Baseline Conditions

8.12 The application site currently comprises an established farmyard, including a pig breeding, rearing and finishing unit. The odour impact assessment at Appendix 6 provides an assessment of the existing pig unit development, and the proposed development.

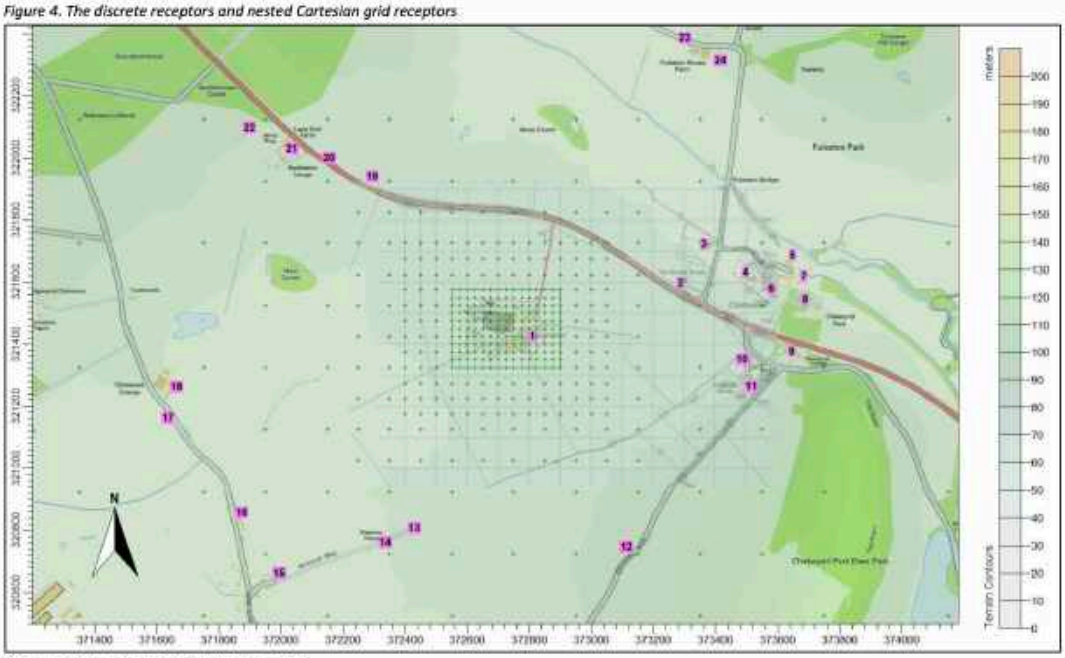
Scope of the Assessment

8.13 This section should be read in conjunction with the detailed Odour Impact Assessment at **Appendix 6**.

8.14 AS Modelling and Data were instructed to undertake an Odour Impact Assessment relating to the proposed poultry unit development described in

Chapter 3. The receptors considered within the odour impact assessment are shown in the image below, taken from Figure 4 of Appendix 6.

Figure 4. The discrete receptors and nested Cartesian grid receptors



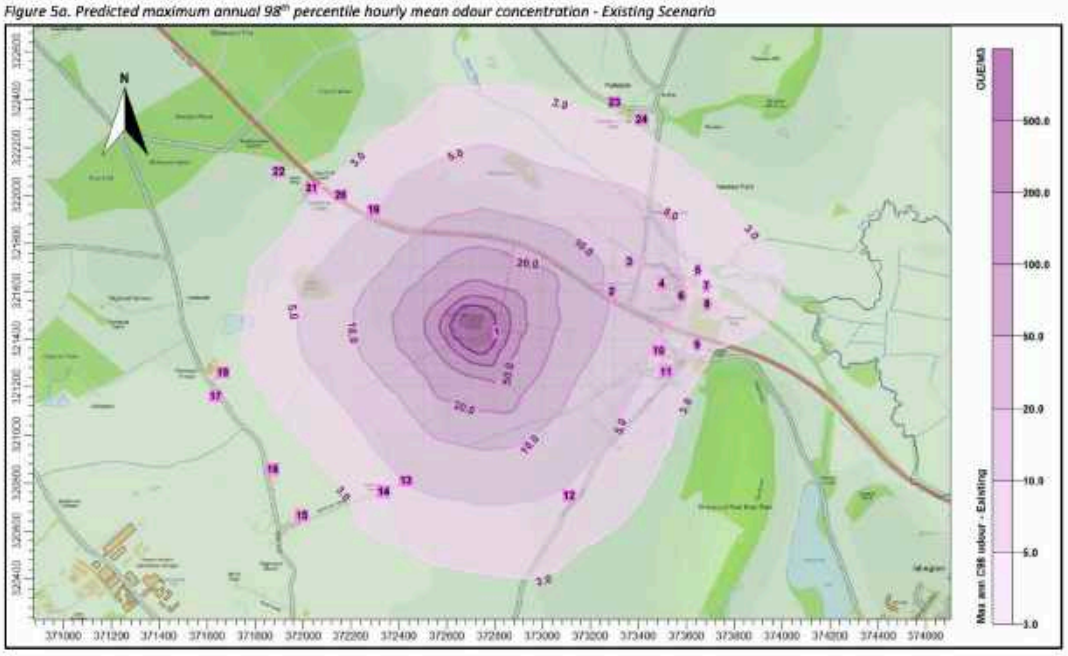
16

8.15 The results of the odour impact assessment as shown in the image below taken from Table 3 and Figure 5a of Appendix 6.

Table 3. Predicted maximum annual 98th percentile hourly mean odour concentrations at the discrete receptors

Receptor number	X(m)	Y(m)	Name/Location	Maximum annual 98th percentile hourly mean odour concentration (ou_E/m^3)	
				Existing	Proposed
1	372811	321427	New House Farm	193.08	16.34
2	373288	321599	The Garden House	8.81	3.75
3	373362	321723	Chetwynd	6.73	3.13
4	373498	321631	Chetwynd	5.90	2.50
5	373648	321686	Chetwynd	4.56	2.02
6	373581	321578	Chetwynd	5.15	2.13
7	373685	321619	Chetwynd	4.47	1.86
8	373688	321545	Chetwynd	4.32	1.85
9	373646	321377	Chetwynd	3.45	1.67
10	373487	321351	Chetwynd	4.43	2.14
11	373517	321264	Chetwynd	4.02	2.04
12	373113	320746	Chetwynd Road	4.45	2.16
13	372429	320809	Waterloo Road	5.13	1.67
14	372336	320762	Waterloo Road	3.94	1.51
15	371995	320663	Waterloo Road	2.05	0.85
16	371874	320857	Marsh Road	2.19	0.84
17	371637	321162	Marsh Road	2.36	1.03
18	371664	321261	Chetwynd Grange	2.57	1.17
19	372295	321940	A41	5.01	2.22
20	372156	322000	Beetlestone Cottage	3.58	1.59
21	372036	322031	Lane End Farm	2.91	1.26
22	371900	322097	Jenny Ring	2.14	0.99
23	373302	322386	Puleston	2.57	1.58
24	373415	322315	Puleston	2.70	1.65

Figure 5a. Predicted maximum annual 98th percentile hourly mean odour concentration - Existing Scenario



Odour Summary

8.16 AS Modelling & Data Ltd. has been instructed by Mr. Ian Pick of Ian Pick Associates Ltd., on behalf of M. E. Furniss and Sons, to use computer modelling to assess the impact of odour emissions from the existing and proposed pig rearing houses at New House Farm, Chester Road, Chetwynd, Newport. TF10 8BN.

8.17 Odour emission rates from the existing and proposed pig rearing houses have been assessed and quantified based upon emission rates obtained from available published research and measured values available to AS Modelling & Data Ltd. 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.

8.18 The modelling of the Existing Scenario indicates that there are currently several residences in Chetwynd to the east, at Waterloo Road to the south and along the A41 to the west, where odour levels are in the range where UKWIR research suggest complaints become increasingly likely and at Further afield there are exceedances of the Environment Agency's benchmark for moderately offensive odours, which is a 98th percentile hourly mean of 3.0 ouE/m .

8.19 The modelling of the Proposed Scenario indicates that should the proposed development at New House Farm proceed, odour exposures in the surrounding area would decrease significantly at all residential receptors considered. At The Garden House and over easternmost parts of Chetwynd, the odour exposure would remain slightly in excess of Environment Agency's benchmark for moderately offensive odours; however, at all other receptors odour exposures would be below the Environment Agency's benchmark.

Cumulative Impacts

8.20 The Odour Impact Assessment at Appendix 6 predicts the impacts of the proposed development at New House Farm in isolation. The closest neighbouring livestock unit to the site is Chetwynd Grange which is a small straw based pig finishing unit located around 1km to the west.

8.21 Odour impacts from poultry units are very localised impacts and limited to impacts within a few hundred meters of the poultry buildings. The odour impact assessment shows that the odour emitted from the site will be significantly reduced, and as such, in combination assessment with other units is not necessary.

8.22 The odour impacts of the development relate to its operation for the design life of the project, and therefore represent a permanent effect.

Assessment Level Assuming Mitigation

8.23 Mitigation is designed into the scheme through the use of the proposed air scrubbing system. The overall assessment level based on the criteria outlined in section 3.23 of this report is **Positive – The proposal has a benefit.**

Residual Impacts

8.24 Odour will be perceived at the closest dwellings to the development (i.e. it will not be 'odour free'), however this will not be at a level which would normally be considered unacceptable at this location according to IAQM Guidance or the EA. Odour will be reduced from current levels.

CHAPTER 9.

9. DRAINAGE AND FLOOD RISK

Baseline Conditions

9.1 The application site comprises an existing farm yard, pig breeding unit and anaerobic digester plant. The site is noted on the Environment Agency flood maps as Flood Zone 1 i.e. outside of the flood plain.

9.2 Surface water drainage from the site drains direct into the River Meese without attenuation. A detailed Flood Risk Assessment and Surface Water Management Strategy for the proposed development has been provided by Alan Wood and Partners and the full report is shown at **Appendix 7** of this statement and should be read alongside this chapter.

Assessment

Drainage and Flood Risk

9.3 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 attenuation pond, with restricted discharge to the River Meese. The use of this type of system prevents surges during high rainfall and provides benefits in terms of downstream flooding consequences.

9.4 The design of the sustainable drainage system includes design provisions for climate change within the designed system.

9.5 Clean and dirty water systems are separate to prevent pollution of the water environment. The buildings incorporate a sealed concrete tank underneath the floor, which will be linked via a vacuum system to the existing on-site slurry store.

9.6 Roof water will be collected using gutters and downpipes, and drained into the proposed attenuation pond. The attenuation pond will have a restricted discharge into the existing site drainage system which discharges into the River Meese.

9.7 The development site is currently entirely concrete and buildings, and current surface water drainage is not attenuated. The proposals therefore present a substantial improvement over the current situation.

Summary

9.9 The development area is located within Flood Zone 1. The built development is not at risk of flooding. In accordance with the NPPF, drainage in the form of an attenuation pond has been designed into the scheme. The use of this type of

system prevents surges during high rainfall and provides benefits in terms of downstream flooding consequences.

9.10 The drainage proposals are required for the design lifetime of the development and therefore the impacts should be regarded as permanent.

Assessment Level Assuming Mitigation

9.11 Mitigation is designed into the scheme through the use of the soakaways for sustainable drainage. The overall assessment level based on the criteria outlined in section 3.23 of this report is Positive – **The proposal has a benefit.**

Residual Impacts

9.12 None. The proposals utilise an attenuated drainage system to ensure surface water drainage is managed at a greenfield runoff rate.

References.

Telford and Wrekin Council Scoping Opinion: EIA/2020/0010.

National Planning Policy Framework 2019.

DEFRA Local Air Quality Management (LAQM) Technical Guidance 16 (Feb 2018).

The Water Resources (Control of Pollution) (Silage, Slurry and Agricultural Fuel Oil) (England) Regulations 2010

The Environmental Permitting (England and Wales) Regulations 2016.

NON-TECHNICAL SUMMARY

1.1 This non-technical summary has been produced to summarise the issues, mitigation measures and effects relating to the proposed development of 3 No. linked livestock buildings, together with a lairage, loading ramp, site office and 12 No. feed bins at New House Farm, Chester Road, Chetwynd. The development provides 5100 sq m of new floor space and will provide accommodation for up to 6,000 pigs, which will be reared from 40kg through to 110kg.

Assessment of Significance of Environmental Effects

1.2 In terms of the potential environmental effects, these have been assessed in accordance with the significance criterion outlined below.

None	**The development will not produce any effects beyond those which may be experienced within the current farming regime.**
Low	**There will be an effect, however this will be localised and will not impact on environmental and other features to their detriment when relating to existing uses (e.g. distance too far)**
Medium	**There will be an effect which will impact on environmental features, but not significantly.**
High	**A significant effect.**
Positive	**Has a benefit.**

1.3 The scheme has been designed to take into account the potential environmental effects, with mitigation inherent in the project design. The scope of assessment included within the Environmental Impact Assessment includes the following:

- Ecology and Nature Convervation, including Ammonia Impact Assessment.
- Amenity, Noise and Air Quality.
- Drainage and Flood Risk

1.5 The impact relating to these issues is summarised in the following sections.

Environmental Impact

Issue	Mitigation Measures	Effect Assuming Mitigation
Ecology		**Low (not significant)** The sites habitats which will be affected by the works are common and widespread and are considered to be of low intrinsic biodiversity value.
Ammonia Deposition	Use High Speed Roof Fans.	**Positive (not significant).** The proposals represent an improvement to ammonia dispersal and a reduction in ammonia and nitrogen deposition at nearby protected ecological sites.
Noise		**Low (not significant)** The noise assessment concludes that the noise impacts of the development are very low for plant and operational noise.
Odour	Use High Speed Roof Fans.	**Positive (not significant)** The proposals represent an improvement to odour dispersal and a reduction in odour at all nearby sensitive receptors.
Flood Risk and Drainage	Use of an attenuation pond for sustainable drainage purposes.	**Low (not significant)** The the development area is located within Flood Zone 1. The built development is not at risk of flooding. In accordance with the NPPF, drainage mitigation in the form

		of attenuation has been designed into the scheme. The existing site discharges to the drainage system without attenuation.

1.6 In conclusion, the proposed pig unit redevelopment at New House Farm will not produce any significant Environmental Impacts. From the information appraised through the Environmental Impact Assessment process, it is clear that the proposed redevelopment will have low impact on the environment taking into account the migration measures proposed.

1.7 No technical difficulties have been encountered in preparing this assessment.

Ian Pick BSc (Hons) MRICS, May 2021.