# PLANNING JUSTIFICATION STATEMENT

Erection of a 32,000 Free Range Poultry unit extension at

Upper Bryn, Abermule, Montgomery, Powys, SY15 6JW Rev A 04/10/2019 Rev B 29/04/2022

Prepared for WL Hamer

Roger Parry & Partners

Roger Parry & Partners LLP www.rogerparry.net gail@rogerparry.net **Tel: 01691 655334** 

# **Table of Contents**

- **1.0 Introduction**
- 2.0 Design and Access Statement
- 3.0 Manure Management Plan
- 4.0 Ammonia Modelling
- **5.0 Odour Modelling and Management Plans**
- 6.0 Noise Management Plans
- 7.0 Dust and Bioaerosol Management Plan
- 8.0 Pollution Management Plan
- 9.0 Energy Efficiency
- **10.0 Pre Consultation**
- **11.0 Planning Policy**
- **12.0 Conclusions**



The Estates Office 20 Salop Road Oswestry Shropshire SY11 2NU Phone 01691655334

mail@rogerparry.net www.rogerparry.net

Offices also at Minsterley & Welshpool

#### 1.0 Introduction

This Planning Justification Statement shall consider those Planning matters relating to the submission of an application for full planning consent to Powys County Council for the proposal to construct a Poultry Unit on farm to accommodate a further 32,000 Free Range Chickens (Egg Production) together with associated feed bins, internal farm access and other associated works.

The application is in respect of land at Upper Bryn, Abermule and is presented to the Local Authority by WL Hamer

Upper Bryn is an intensive mixed enterprise farm, with a suckler cow herd and a flock of commercial sheep and an existing 32,000 bird poultry unit.

Upper Bryn is a highly developed unit, with a range of modern steel portal framed farm buildings, together with retained traditional buildings.

The farm business is run by the farming partnership WL Hamer, comprising of Mr Tom Hamer and Ms Irene Lloyd.

The business is now considering diversifying further to accommodate a second free range poultry unit to accommodate an additional 32,000 free range birds, which will enable the unit to develop further and provide a sustainable future for the business.



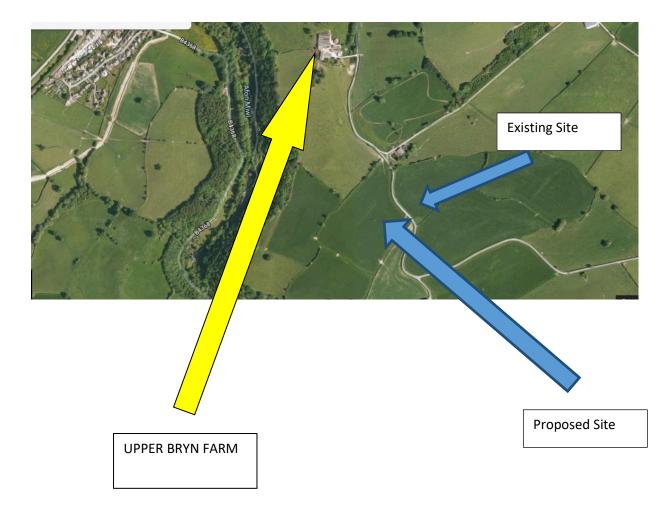
The Estates Office 20 Salop Road Oswestry Shropshire SY11 2NU Phone 01691655334

mail@rogerparry.net www.rogerparry.net

Offices also at Minsterley & Welshpool

### 2.0 Design and Access Statement

Please see below photographs of the site:





The Estates Office 20 Salop Road Oswestry Shropshire SY11 2NU Phone 01691655334

mail@rogerparry.net www.rogerparry.net

Offices also at Minsterley & Welshpool Upper Bryn is shown on the aerial photograph above.

The farmstead at Upper Bryn is in a rural area around 1 km to the south-east of the village of Abermule in Powys. The site is at an elevation of around 175 m, with the land falling towards the River Severn Valley to the northwest and rising towards hills and mountains to the south-east. The surrounding land use is predominantly pasture, although there are some arable fields and wooded areas.

The existing poultry house at Upper Bryn is approximately 500 m to the south-south-east of the farm buildings. This poultry house provides accommodation for up to 32,000 egg-laying chickens and is ventilated by high speed ridge fans. Within the sheds the chickens are housed in vertical tiers and manure is removed twice weekly by a belt system and taken off the site. The chickens have daytime access to an outdoor ranging area via a series of pop holes along the side of the house.

It is proposed that a second poultry house would be constructed on a green-field site approximately 50 m to the west of the existing poultry house. This poultry house would provide accommodation for up to 32,000 egg-laying chickens and would be ventilated by high speed fans. A belt system would remove manure from the house twice weekly and the manure would be taken off site and the chickens would have daytime access to outdoor ranging areas via a series of pop holes along the sides of the house.

There are a number of areas designated as Ancient Woodlands (AWs) within 2 km of the poultry houses at Upper Bryn. There is also a Site of Special Scientific Interest (SSSI), namely Hollybush Pastures SSSI, within 5 km of the farm and stretches of Montgomery Canal, designated as a Special Area of Conservation (SAC) are within 10 km of the site.

The location of the proposed building has been carefully considered, to be as close as possible to the existing range of farm buildings and next door to the existing poultry unit, and also surrounded by an established hedgerow boundary.

#### **Proposal and Character**

The proposal is for the creation of a Poultry Unit Extension at Upper Bryn to provide accommodation for a further 32,000 free range birds

The proposed building shall be 118 metres long by 23 metres wide with a roof pitch of 15°, internal eaves height of 3.1 metres. The building shall house 32,000 free range birds. The total footprint of the building is 2,714 square metres. The building shall be constructed of box profile steel sheeting to the walls and also to the roof, with UPVC double glazing windows. The box profile steel sheeting is slate grey.

The size of the proposed building is in line with the land availability surrounding the development, at a ratio of 2000 birds for every hectare of land. The maximum ranging distance associate with the building is 350 metres from building to the external perimeter of associated land.

The birds shall have access to roam the land lying to the south, west and east of the proposed building which shall be dedicated pasture for the enterprise. The land will be fenced using electric fencing to keep predators out. Birds will be inspected at least once a day.

The building proposed operates a Multi-tier system, thus meaning birds can be housed in a smaller building than a Single tier system. The two tier system operates two tier perching decks for those laying hens within. The perching areas are slatted to allow the manure to drop through the flooring system onto the manure conveyor belt. The manure conveyor belt is operated every four days and removes the manure from the internal conveyor belt to the external conveyor belt and the manure spreader parked outside ready to directly apply the manure to the land/to be stored in the manure store on farm and manure store proposed or sold off farm. The applicants are also considering applying for planning permission for a covered manure store on farm

The building shall be constructed using steel box profile sheeting in slate grey colour to assist is assimilating the building into the local landscape as is in line with the colour of the existing poultry unit on farm.

The birds are Free Range and have an opportunity each day to exit the building and roam the designated ranging ground. The birds will exit the building using pop holes which are included in the design of the building, and are displayed below on an example photograph. The maximum stocking density for the unit is nine birds per square metre, and there must be 250cm square of litter area per bird. The perches internally for the birds shall allow a depth of 15cm per hen and there must be a minimum of 10cm of feeders per bird and one drinker per ten birds.

Feed for the 32,000 birds is proposed to be stored in four external feed bins. The feed bins shall be slate grey. The feed will be automatically conveyed to the unit. The steel bins shall be located adjacent to the proposed building.

Free Range Birds are brought into the enterprise as young laying stock and remain in the unit for a fourteen month period. Following the end of the cycle for the laying stock all birds are removed and the building is thoroughly cleaned internally and the next flock introduced to restart the cycle.

#### Site and Scale

The location of the building has been carefully considered, the application site is set adjacent to the existing poultry unit and landscaping previously undertaken under the original planning application.

There are no public footpaths affecting the proposed site. A footpath lies to the south of the development but will not be affected by any building work. The footpath runs through a pasture field with livestock grazing presently therefore there will be no material change with grazing hens. The view from the footpath will have a slight material change due to the presence of the building, however the existing farm complex and the current poultry unit are already visible.

#### Landscaping

The building has been proposed adjacent to the existing poultry unit on farm approved by Powys County Council and is separated from the county highway by existing mature hedgerows. Should the Local Authority require additional Landscaping around the proposed development the Applicant would be willing to undertake a scheme to be approved by the Authority.

The visibility of the proposed poultry unit is limited due to the undulating landform though distant views of the site are possible from the Dolforwyn area north of the Severn Valley.

The Visual and Sensory aspect of the LANDMAP study awards the Llandyssil Hill and Scarp area a moderate evaluation. The impacts of the development of a second poultry unit on the key landscape characteristics of the area have been considered and it has been concluded that the impacts are of a localised scale, with no significant effects.

The visual impacts are limited due to the undulating landform and the siting of the second poultry unit in a shallow depression below the county highway and surrounded by existing established hedgerows. No near by residential property is affected with clear, unrestricted views of the unit proposed. Therefore, the impact on residential properties is considered negligible.

There is going to be moderate-major visual impact effects experienced by those using the public footpaths experienced in proximity to the development. Footpath 70 and 10, are those to be considered and it is believed that neither appear to have that much use. No development will take place on either footpath and the footpath will be unrestricted. The footpath users already have the existing unit in their view and the large range of buildings at Upper Bryn therefore the visual impact is considered to be minor to negligible.

#### **Building Design**

The design will be low profile and the materials of the roof and sides will be clad with slate grey sheeting (or a colour to be approved by the LPA) set above a low concrete base wall.

#### The Ranging Area and Fencing

The birds within the free range unit will graze the designated land in a rotational field system. The birds will step out of the building through the pop holes provided and onto a veranda, which shall ensure that the ground is not poached and compacted by the birds. The veranda shall also ensure that the feet of the birds are cleaned prior to entering the building. The birds will be then directed to those fields available for grazing in rotation to prevent over stocking of the ground and ensure the fertility of soil. Good pasture management is essential, and it is paramount the problems of parasitic intestinal worms and coccidian oocysts are avoided.

Electric fencing shall surround the ground used as part of the enterprise to prevent predators entering onto the land.

#### Vehicle Movements and Movement To, From and Within the Development

The existing highway network that currently serves the applicants and neighbouring agricultural holdings are regularly used by both Artic and Heavy Goods Vehicles.

Vehicles will approach Upper Bryn using the A483 (Newtown – Welshpool), B4386 entering Abermule, B4368 leaving Abermule and on to the C2052 where you will pass the Upper Bryn farm access, and access the free range egg complex via a new agricultural entrance.

- Delivery and Removal of Birds. At the beginning of the cycle an articulated lorry would deliver all of the birds and then remove the said birds at the end of the 14 month cycle. The proposal would generate four additional vehicular movements to the farm per annum. 2 movements per flock cycle.
- Egg Collection. Collection of eggs would take place two times per week in a rigid 3 axle vehicle. 112 movements per flock. There will be no extra movements for egg collection as the collection will be made on the same lorry as the existing poultry unit.
- Delivery of Feed. A lorry would deliver feed twice once per week. 56 movements per flock. There will only be once extra lorry movement delivering feed as a result of the proposals.
- Manure. Manure will be removed from the unit every four days, by tractor and trailer and shall be used on land in the ownership of the business. There will be additional movements involving the application of manure however these shall be confined to the farming unit at Upper Bryn. Manure will only be applied to the land when the nutrients are required otherwise will be stored on farm
- Staff. The unit shall be run by the family currently reside on site resulting in no additional movements.

#### Drainage

Surface Water from the proposed building will be captured within a new soakaway system. A clean water storage tank will be installed. All dirty water will be routed and collected in a dirty water tank.

#### **Emissions**

The building design incorporates the use of mechanical ventilator extractor fans, the mechanical extractor fans will thermostatically control the building. Therefore they tend to operate more frequently during hot weather. Efficient design of ventilation fans has minimised the number needed for this building. Fans will be maintained and inspected in accordance with the manufacturers or suppliers instructions. This will minimise mechanical noise from the unit and also dust escape. Automated feeding by internal conveyor with augers direct from the sealed external feed hoppers will minimise dust creation. The insulated construction of the walls and roof also reduce sound transmission.

The applicants have secured an IPPC Permit for 64,000 birds.

#### Lighting

The nature of the proposed poultry installation means that some light sources will be required to allow safe and effective activities within the site to take place. The assessment has identified that the site is located within a relatively dark, rural context with limited existing sources of light. However, the site is located in an intensively farmed area and as such field operations and other activities take place during hours of darkness and use intense lighting for visibility (rather than security purposes).

The main building's gable ends will be lit externally with a single low-wattage fitting of low intensity lighting during normal working hours in winter months. Lighting of the site would only be required during working hours in winter months and during bird catching where lighting would be kept as low as practically possible. Appropriate cowls/shielding of lights would be instigated, the light spread would be minimised through use of directional lighting and hours of lighting would be kept to a minimum to reduce disturbance.

There will be no round the clock external lighting of the site and no use of high intensity security lighting. All external lighting will be downward facing and protected with a cowl to reduce light spill to outside the unit.

During hours of darkness the poultry sheds will be illuminated internally to 0.4 lux. The buildings will be clad with high density metal profile sheeting and therefore no light will escape to outside. Regular tests will be conducted to check the effectiveness of the light proofing. The windows will be shuttered to avoid light escaping to the outside.

During the clear out the site will be lit by low wattage lighting while birds are being removing from the buildings, this operation will be carried out in low light conditions to minimise stress to the birds.

It is anticipated that the potential impact associated with this aspect of the proposed development will be minimal as there will not be round the clock security lighting and the area of lighting (the front gable ends of the buildings) is directed away from the main residential areas, this will respect the rural context of the site. Added to this the lighting will be directed downwards to reduce light escaping from the site plus the light will be protected with a cowl to avoid the lights lighting any areas outside of the site. The lighting has been sited and angled to provide the minimum illumination required by the applicant so as not to adversely affect road users, neighbours, the natural environment or wildlife.

#### Ecology

An ecological assessment including a desk study was carried out as part of the first application together with an extended phase 1 habitat survey and a Great Crested Newt Survey. The work was undertaken by Jon Sloan Ecology and Churton Ecology. The area surrounding Upper Bryn was considered therefore the desk top data is used as part of this planning application with the unit proposed directly opposite the second.

Protected Species – as detailed in Ecological Reports prepared;

'Bats – the site provides little notable foraging habitat and the area is relatively isolated and exposed. The hedgerows, which are either trimmed or (otherwise) degraded, do not represent particularly notable commutable features. However, small numbers of generalist bat species may occasionally forage along the boundary hedgerows during periods of favourable weather. Therefore, bats are an important ecological feature at a site level.

Great Crested Newts – there is one pond within 250m id the site, lying to the north east of the proposed site. The pond suffers a degree of agricultural enrichment (slurry run off) but still managed to support a medium sized breeding population of Great Crested Newts.'

The development footprint supports poor quality terrestrial habitat i.e. there are no features thought suitable for refuge and the grassland is likely to be negligible value to foraging newts given it is widespread and common habitat type and is geologically, topographically and botanically indistinct in the local wider context.

'The parallel (lane) flanking hedgerows provide excellent potential terrestrial habitat. The roaming area, which currently supports poor quality terrestrial habitat, will essentially remain under a similar if nor more favourable management regime.

Therefore, Great Crested Newts are considered to be a potentially important ecological feature of the site.

A Great Crested Newt survey has been undertaken on site, and were recorded on 5 occasions during a total of 11 trapping and torch observation opportunities. 'On the 29.05.17 a peak count of 3 adult males and 10 adult females was obtained from torching. The peak count from bottle trapping was 1 adult male and 2 adult females on 9.6.17.

No Great Crested Newt Eggs or efts were recorded during the survey period.

Several Smooth newts, 2 male palmate and a few frog tadpoles were the only other amphibian species recorded during the surveys.

A peak count of 13 individuals represents a lower end medium 'population' of Great Crested Newt.

Since no eggs or tadpoles were recorded it was felt with reasonable certainty that breeding does not occur within the pool. It is unclear exactly why the pool is not used for breeding; however, there may be several possible reasons for this as follows:

The pool is fed by a smaller feeder channel that drains off a number of cultivated and improved fields within a significant catchment area. Profuse bloods of filamentous and mat algae suggest a high level of eutrophication, and the pool has a potent small of effluent. High pollution levels (resulting in prey/oxygen reduction), coupled with a constant through-flow of cooler water, may be adequate deterrents to breeding. The poor assemblage of invertebrates is consistent with this assessment. In addition the pool is shallow and nearing full succession and silts up due to the extensive catchment

area and constant use by cattle. Subsequently the effects of pollution will become increased with the decrease in water volume resulting from natural succession.

The nearest other extant water-bodies lie at over 350m distance and, generally, pools are scare within the 1km surrounds. This reduces the potential for interchange between meta or source populations, resulting in smaller and more genetically impoverished and possible non-breeding 'populations'. Therefore, newt presence in the pool is likely to be a result of a few wandering individuals seeking out foraging areas and potential breeding opportunities.

Since breeding does not occur in the pool the presence of juvenile and immature newts can be reasonably discounted. Young animals tend to form a large percentage of any population group and can be present on land at any time of year. Young newts are also more prone to random and wide ranging dispersal, which would significantly increase the likelihood of potential development related impacts.

No potentially suitable intermediate terrestrial habitat will be disturbed, therefore the chances of impacting on newts are minimal given that the 'population' present is reasonable small and non-breeding.

Since no direct threats to individual newts, their migration routes or habitats can be reasonably predicted, and perceived impacts can be simply avoided, there will be no requirement for EPC licencing.

A low end of medium non-breeding 'population' of Great Crested Newt is present in the pool. The pool is isolated from other water-bodies and is not used for breeding; it is used solely for foraging and/or aquatic shelter by a few vagrant individuals. The 'population' present is, therefore, of minor conversation significance and its loss to pool succession, for example, would have little impact on wider populations in the local or regional area.

As a result, terrestrial habitats in the wider pool surrounds are of increasingly low conservation value. Optimum areas of suitable habitat within 50m of the pool are likely to provide the core areas used by the limited number of animals present. However, larger areas of suitable terrestrial habitat in the wider surrounds (100m+) may also be used less frequently and potential habitat disturbance to these areas should be minimised, since individual newts are also protected.'

Dormouse – the boundary hedgerows have some suitability for Dormouse but their trimmed nature (offering only a poor food resource) and poor links to the woodland makes them unlikely to be used by this species. Therefore, Dormouse is not considered to be an important ecological feature of this site.

Badger – no sign of Badger (digging/latrines/trails) activity was noted in any part of the field. Therefore, badger is not considered to be an important ecological feature of the site.

Reptiles – no reptiles were seen during the site visit and general grazing or cutting regime of the site and adjacent fields makes the site unsuitable for reptile species. Therefore, reptiles are not considered to be an important ecological feature of the site.

Birds – The site has no suitability for specially protected birds of prey to breed (Red Kite or Barn Owl) and offers limited foraging opportunities for Red Kite and none for Barn Owl.

The site is considered unsuitable for use by ground nesting bird species and none were noted during the site inspection, however, Skylark (a priority bird species) was heard signing over an adjacent field to the west.

Bordering hedgerows, trees and shrubs have the potential to provide breeding habitat for a range of common and priority scrubland bird species. Therefore, breeding birds are considered to be an important ecological feature at site level.'

The above reports are superseded by present reports prepared by Mr Will Prestwood of Arbor Vitae both in terms of the preliminary ecological report and woodland assessments. The reader is referred to the two reports dealing with the current ecological position at Upper Bryn;

1)	Woodland Report	Arbor Vitae	18/02/2022
2)	Preliminary Ecological Report	Arbor Vitae	28/06/2021

#### **Quality Standards**

All eggs produced at Upper Bryn Farm will be done so in a Free Range System, thereby meaning the eggs and chickens are managed to comply with the RSPCA Freedom Food Standard.

The applicants as will all their farming enterprises will endeavour to ensure high standards of welfare are maintained.

The Unit will adhere to the Codes of Good Agricultural and Environmental Condition and Cross Compliance Regulations of the Welsh Government. During application of manure to the land the Silage, Slurry and Agricultural Fuel Regulations will be adhered to.

#### **Dead Bird Management & Pest Control**

There are several reasons why the careful disposal of dead birds is an important part of the health management of systems :

- Reduces the risk of disease spread back to the flock and other species.
- Reduces the likelihood of carcases being removed by scavengers, which can transmit disease.
- Reduces the risk of blow flies (*Caliphora sp*.), which can also transmit disease.
- NFS company registered firm Pointins are utilised

The dead birds will be collected by an approved contractor of the National Fallen Stock Disposal Scheme, prior to this they will be stored in a secure container in line with the animal by-products Regulations 2003. Pest control for rats will be carried out by an approved agency. Preventative measures will be used to control flies to include fly screens and flies controls replaced periodically to prevent the flies entering the building from the outside.

#### **Community Safety**

#### **Site Security**

Security is critical throughout day and night to prevent the theft of equipment and livestock at Upper Bryn. The farmhouse occupied by Tom and Irene and is positioned very near to the unit, as therefore security is available on site throughout the day and night, staff are always on hand 24 hours per day to ensure the welfare of the livestock. Tom and Irene are also at the poultry unit throughout the day processing eggs, and checking the welfare of their stock.

#### **Environmental Design Statement**

A design statement shall accompany all detailed applications and will describe the actions taken to design and adapt the development to fit its location. Wherever practicable, developments shall be designed to reduce energy consumption and maximise energy conservation and maximise energy conservation through the use of appropriate materials, design, layout and orientation.

It would be normal practice because the Poultry Unit is over  $1000m^2$  for the development to have to meet the BREEAM 'Very Good' standard and achieve the mandatory credits for 'Excellent' under Ene 1 – reduction of CO<sub>2</sub> Emissions. The proposed use is a purpose built poultry unit which is specifically designed for the welfare of the birds. As a result of this together with the natural ventilation provided through the building in the form of pop holes this standard is not required.

• The pop holes will be open during the day to provide natural ventilation to the building rather than using mechanical ventilation. Mechanical ventilation will only be used to assist natural ventilation during periods of hot weather.

• Manure will be used on the land at Upper Bryn and land in their control reducing the need to import fertiliser onto the farm. The excess manure from Upper Bryn, once the requirements on farm are met will be sold off farm to Gamber Logistics as per the submitted letter from Gamber Logistics. This manure will be taken directly off farm and used within Anaerobic Digestion Plants supplied by Gamber Logistics or immediately incorporated into extensive arable farms.

- Stone which is available on farm will be used to provide the hardcore for the concrete slab of the building and to extend the farm track.
- It would be possible to harvest the rainwater off the roof of the building and reuse the water for washing down the building.
- No protected species would be affected as a result of the proposals.

The above points ensure that the Unit is sustainable as required by Powys County Council.

#### Other complimentary measures:-

We have considered that energy efficient design principles are also key to the success of schemes including if electricity is required to be supplied to the building that energy efficient light bulbs are used.

We also aim to:-

- Design out waste from the outset
- Minimise the energy used during the construction phase of the development through careful project planning
- Use reusable and recycled materials

#### Social context of the development

The scale and type of the proposed poultry unit will be in keeping with the existing range of farm buildings on site and other agricultural buildings within Powys as can be seen by the plans submitted. The size and position of the proposed unit is to be agreed with Powys County Council, but following analysis of policy against the available sites at Upper Bryn, it is believed that the best site is presented in terms of landscape and visual amenity, proximity to existing buildings including poultry unit one, highway access to name a few reasons.

#### Economic context of the development

Farm businesses need to grow in response to market forces and changing legislation if they are to survive. WL Hamer is an existing farm business which is moving forward and utilising the land within its control. It is the belief of the business that the farm cannot expand any further into sheep and beef as land and building restraints would make it uneconomical. The poultry enterprise expansion has been seen as an opportunity to generate another income on the holding to enable all the partners to still remain in the locality and to provide a future for both Tom and Irene.

The farm business is proposing to extend the free range egg production enterprise. This enterprise has been researched fully and they are confident that the business can be a success and supplement the current marginal farm profits.

Farm businesses need to change and grow in response to market forces and legislation if they are to survive.

Poultry egg laying is becoming an important element in the Powys agricultural economy.

Planning Policy Wales is supportive of diversification of agricultural enterprises.

The current market dictates that agriculture must adapt to meet consumer demands, the applicant has chosen to diversify to respond to the demand for free range eggs.

## 3.0 Manure Management Plan

#### CYMRU ADAS WALES

#### SPECIALIST CONSULTANCY Manure Management Report

#### Prepared for:

Ms Lloyd WL Hamer Upper Bryn Abermule Newtown Powys SY15 6JW

Prepared by: Marc Jones Cymru ADAS Wales Henstaffe Court Business Centre Groesfaen Cardiff CF72 8NG

> Date: 27th of June 2019 Tel: 07814617814 Email: Marc.Jones@adas.co.uk QC Aled Roberts Farm Business Consultant



#### CONTENTS

1.	Scope and purpose of the Plan	1
Ζ.	Farm Details	2
3.	Slurry & manure application	3
4.	Storage capacity & slurry production	4
5.	Available manure, slurry and dirty water storage	5
б.	Action plan	6
7.	Sources of additional information	6
Арр	endix 1 - LAND AVAILABLE FOR SPREADING MANURES	7
Арр	endix 2 - RISK MAPS FOR MANURE AND SLURRY APPLICATION	8
Арр	endix 3 - LETTER FOR CONTINGENCY PLANNING	5

During the course of determination of this planning application the regulations affecting the application of manure to farmland have changed as a result of direction from Welsh Government. The new guidance regarding manure management, replacing the Code of Good Agricultural Practice on farm is The Water Resources (Control of Agricultural Pollution) (Wales) Regulations 2021. This application shall now adhere to this 2021 guidance only.

#### SCOPE AND PURPOSE OF THE PLAN

The purpose of this report is to offer guidance on the management of manure on farm for the current 32,000 layer poultry unit and a proposed additional 32,000 birds (64,000 in total), and to produce a manure management plan for the farm business. This report aims to show that there is sufficient land available for safely spreading manures at Upper Bryn, and that the nitrogen applied from such manures falls under the maximum application of 250kg/ha per annum under the Code of Good Agricultural Practice.

This report has been produced from figures obtained from Ms Lloyd and observations made during the visit. It confirms the advice given during the visit and supplements this with general advice on pollution risks.

Advice and recommendations are based on information provided by the client. All reasonable efforts have been taken on the part of ADAS to verify the information is correct. Any actions that affect the tenure of the business or anyone with an interest in the business should be discussed with the appropriate professional adviser before taking material steps in their implementation. Rainfall data has been taken from the publication 'Cost Effective Slurry Storage Strategies on Dairy Farms' by Dairy Co.

The 2021 Water Resources Regulations amended the manure nitrogen application rates from 250kg/ha per annum to 170kg/ha per annum.

#### FARM DETAILS

Currently Upper Bryn is farmed in by Ms Lloyd and trades as WL Hamer. The farm currently extends to 169.75 ha. Of this 125.16 hectares is owned while the remainder of ground is rented on annual tenancies.

The farm is currently in the Glastir Entry agri-environment scheme and therefore manure and inorganic fertiliser records must be maintained. The current habitat prescriptions do not conflict with the new proposed developments and the manure management plan.

Current farm stocking stands at 450 Welsh Mule breeding ewes which produce finished lambs for sale. 120 yearling ewes are purchased as replacements each year. The business also farms 110 Limousin cross suckler cows which produce store cattle at 12-18 months of age. Three Limousin bulls are used with the cows. All of the sheep are housed on straw bedding for approximately 6 weeks at lambing time (Early-March) while the cattle are housed for approximately 5 months during the winter period (60 cattle on cubicles remainder on straw yards).

The farm cuts around 120 acres of first cut silage each year which is harvested in late June, the farm also grows 5 acres of swedes and 19 acres of winter wheat with 5-10 acres also being reseed from year to year.

#### SLURRY & MANURE APPLICATION

Under the Good Code of Agricultural and Environmental practice you are not to spread more than 250Kg/ha of total nitrogen per annum from livestock manures. The area of spreadable ground is shown in Appendix 1.

The amount of manure produced from the proposed level of stock and the Nitrogen content of this manure over the housed period is summarised below:-

Stock	Number	Total N produced per day (kg)	Days Housed	Total N Produced	Area Required (Ha)
Free Range Layers	64,000	0.002	365	35274	141.09
Suckler Cow	110	0.227	151	3777	15.11
Bulls	3	0.132	151	60	0.24
Cattle 13-25 months	20	0.137	90	247	0.99
Cattle 3-13 months	105	0.090	151	1433	5.73
Sheep	450	0.033	45	668	2.67
			TOTAL	41459	165.83

#### **Total N Applied From Manure**

This table shows that 165.83 ha of ground are required to spread manure under current legislation. Appendix 1 shows an available spreading area of 141.32 ha. Therefore the farm will not fall within the 250kg/ha farm limit and manure will need to be exported off farm.

It is anticipated that any manure and dirty water will be spread during the growing season this will enable the farm to make full use of the available nutrients.

Any farmyard manure produced on the farm will be stored in sheds prior to it being spread on fields. It is important to adhere to the following regulations when spreading manure:

- Do not spread within 10m of a surface water or land drain
- Do not spread within 50m of a spring or borehole
- Do not spread on land that is likely to become waterlogged
- Do not spread on land likely to flood
- If any field heaps are required do not store manure on any single position for more than 12 successive months

The risk map at appendix 2 shows the areas where organic manures can be spread together with the areas which are not spreadable, with appendix 1 showing the total spreadable area on the farm.

As a result of The Water Resources (Control of Agricultural Pollution) (Wales) Regulations 2021 the nitrogen application rate on farm reduced from 250kg/ha per annum to 170kg/ha per annum. The manure application table is therefore amended below to correspond with the new regulations;

Stock	Number	Total N produced per day (kg)	Days Housed	Total N produced	Area Required (ha)
Free Range Layers	64,000	0.002	365	35274	207.5
Suckler Cow	110	0.227	151	3777	22.2
Bulls	3	0.132	151	60	0.35
Cattle 13 – 25 months	20	0.137	90	247	1.45
Cattle 3 – 13 months	105	0.090	151	1433	8.43
Sheep	450	0.033	45	668	3.9
			Total	41,459	243.8

Appendix 1 to the Manure Management Plan confirms an availability of 141.32 hectares of land. The original manure management plan confirmed an area requirement of 165.83 hectares of land, under the 2021 regulations and nitrogen application rate of 170kg/ha per annum the area of land required for manure application for all of the livestock on farm is 243.8 hectares, leaving a shortfall of land of 102.48 hectares. The excess manure produced on farm will be exported off farm to Gamber Logistics as confirmed in the letter overleaf;



W L Hamer Upper Bryn Obermule Montgomery Powys SY15 6JW

29<sup>th</sup> April 2022

Dear Sirs

#### TO WHOM IT MAY CONCERN – PROPOSED ADDITIONAL FREE RANGE POULTRY UNIT – UPPER BRYN, ABERMULE, MONTGOMERY, POWYS SY15 6JW

Gamber Logistics Ltd is contracted to purchase poultry litter produced on sites operated by egg producers, breeders and broiler growers throughout Wales and the Midlands. We handle around 75,000 tonnes of litter per annum across > 75 sites and distribute it to more than 200 customers. We are willing to purchase ALL of the additional poultry manure produced from the proposed new development. The litter will be removed from the river catchment area relevant to Upper Bryn.

The litter is sold to farms as a replacement for artificial fertilisers, or as a feedstock for anaerobic digesters. The litter is sold by FACTS qualified salesmen, who are able to give advice, when required, on all compliance issues associated with organic manures, including but not limited to COGAP for Soil, Water and Air, NVZ regulations, cross compliance, Farming Rules for Water and nutrient management planning.

Our customers are required to sign a statement acknowledging their responsibilities relating to the relevant legislation when transporting, storing and spreading litter. Duty of Care notes are produced for litter sent to AD plants.

Gamber Logistics keep electronic records of all sales, including customers names and addresses, dates of collection/delivery, and tonnages. These records are forwarded to site operators on a regular basis.

For further information, please see www.gamber.co.uk

Yours sincerely

Merchall

Operations Director Gamber Logistics Ltd 07977 028211 (mobile) 01432 806000 (office)

#### Exported & Imported Manure

Currently no manure or slurry is exported or imported to the farm.

However for the farm to stay within the 250kg/N spread from manure per hectare manure will need to be exported.

**Records** of imports and exports will need to be maintained as evidence of compliance with this requirement, and should include as a minimum, the type of organic manure exported, volume, and date of movement and name/address of recipient

#### POULTRY MANURE WILL BE EXPORTED TO GAMBER LOGISTICS

#### STORAGE CAPACITY & SLURRY PRODUCTION

Rainfall

An accurate rainfall figure has been obtained from the Dairy Co Publication 'Cost Effective Slurry Strategies for Dairy Farms'. This publication takes rainfall figures based from phone number area codes. For the farm in question the nearest area code is 01686 (Newtown). It is estimated that over a 5 month period from the 1<sup>st</sup> of November to the 1<sup>st</sup> of April the maximum rainfall will amount to 438mm.

Jan												
97	72	76	58	66	54	51	68	76	82	92	101	893

#### Slurry and Manure Storage Requirements

All of the slurry produced from the cattle and any dirty water from yards is stored in a slurry tank prior to being spread. All of the poultry manure will be stored in a manure store prior to being spread directly from the manure store so there are no storage requirements or dirty yard areas for the poultry manure.

It has been calculated that the volume of slurry generated over the 5 month housing period by the 60 suckler cows which are kept on cubicles is 408 m<sup>3</sup> (89,760 gallons). This is shown in the table below:

Type of Livestock	Number	No of Days Slurry Collected	Daily Excreta Volume (I)	Volume Produced (M <sup>3</sup> )
Suckler Cows	60	151	45	408
			TOTAL	408

#### **Dirty Yard Areas**

The current cattle dirty yards and the surface of the slurry tower measures 862m<sup>2</sup>. If rainfall was being collected from this area over the 5 month winter housing period a total of 378 m<sup>3</sup> (83,160 gallons) would be collected based on an estimated 520mm of rainfall (Dairy Co data). This is shown in more detail in the table below:

Location	Area M <sup>2</sup>	Rainfall (mm) 5 Months	Total (M <sup>3</sup>
Dirty Yard	862	438	378
		TOTAL	378

#### AVAILABLE MANURE, SLURRY AND DIRTY WATER STORAGE

#### Slurry & Dirty Water Storage

There is one slurry store on the farm which is a circular steel tank that can hold 760m<sup>3</sup> (167,200 gallons) including a freeboard of 30cm. A reception pit for the slurry tank can also hold a further 18m<sup>3</sup> (3,960 gallons). Therefore total storage amounts to 778m<sup>3</sup> (171,160 gallons).

#### **Total Storage Requirements**

Therefore total storage requirements would amount to 786m<sup>3</sup> or 172,920 gallons.

Therefore the current slurry tower would have at least 4.5 months storage. Existing slurry facilities were built prior to 1991. This makes them exempt from the new SSAFO regulations. As no changes or alterations are due to take place with the cattle slurry facilities the farm is fully compliant with all regulations.

#### Manure Stores

A roofed manure store currently exists on the farm and was built under the Glastir ACRES scheme and is fully compliant with SSAFO regulations. This store measures 35m x 15m x 2m and will be able to store all of the poultry manure produced by the new unit.

#### Wash Water & Disease Outbreaks

A sealed underground 20,000 litre tank will also be installed to contain possible contaminated water after a disease outbreak. This tank will contain all of the wash water from the buildings after the disease outbreak. A specialist licensed contractor will then be used to dispose of the contaminated waste.

#### ACTION PLAN

- Contact Natural Resources Wales and give them the opportunity to feed into the design process of the new poultry sheds. Current plans suggest that no issues should arise from the manure and slurry storage on farm as this is already in place and up to standard \* It is recommended that you discuss your plans with the NRW at the first opportunity. Their approval, along with relevant planning consents, will be required prior to planning approval.
- Apply for planning permission for the proposed new structure.
- All the structures should meet the standard BB5502.
- The development control section of the Local Authority will have to consent to the proposal and you need to discuss this with them as soon as possible

#### SOURCES OF ADDITIONAL INFORMATION

"Best Farming Practices: Profiting from a good environment" – Environment Agency (0845 933 3111).

Protecting our Air, Water and Soil a Code of Good Agriculture Practice; Defra 2009.

Defra The Fertiliser Manual (RB209, 2010, 8<sup>th</sup> Edition) available electronically from the Defra web site. (http://archive.defra.gov.uk/foodfarm/landmanage/land-soil/nutrient/documents/rb209-rev-100609.pdf)

PLANET – fertiliser planning software (available free from ADAS 0845 6023864).

Making Better Use of Livestock Manures. Booklets available from ADAS.

Sheet No	Field No	Field Area (Ha)	No Spread Area (ha)
SO1693	6884	2.85	0.4
SO1693	8297	3.25	0.375
SO1693	8977	3.18	0
SO1693	9770	0.45	0.45
SO1693	9995	4.7	0
SO1694	3976	1.49	0.06
SO1694	5272	1.39	0.15
SO1694	5690	7.79	0.5
SO1694	7036	0.86	0.86
SO1694	7319	0.66	0.66
SO1694	7836	1.84	0.2
SO1694	8348	3.55	0.2
SO1694	8767	3.97	0
SO1694	8925	6.37	0.1
SO1694	9043	0.6	0.6
SO1695	4729	0.22	0.22
SO1695	4823	0.83	0.83
SO1695	5354	11.41	0.45
SO1695	6981	1.23	0.1
SO1695	7020	7.83	0
SO1695	8297	5.72	0
SO1793	0776	2.43	0.2
SO1793	2994	5.33	5.33
SO1794	0745	4.33	0.05
SO1794	1026	4.08	0.3
SO1794	1705	3	0
SO1794	2519	3.81	0.5
SO1794	4605	4.85	0
SO1795	0143	6.82	0
SO1892	2395	2.11	2.11
SO1892	6198	4.35	0.3
SO1892	7590	0.11	0.11
SO1892	7994	2.17	0
SO1892	9277	6.58	6.58
SO1893	3507	5	0.25
SO1796	1949	4.98	0.3
SO1796	3266	3.86	0.2
SO1796	4776	4.73	0.05
SO1796	5665	0.47	0
SO1796	4458	0.31	0
SO1793	3277	5.56	0.02
SO1793	6690	4.59	0.15
SO1793	5465	10.06	0.05
SO1793	7254	5.77	5.77
SO1793	8144	4.26	0
		169.75	28.43

APPENDIX 1 - LAND AVAILABLE FOR SPREADING MANURES

#### APPENDIX 2 - RISK MAPS FOR MANURE AND SLURRY APPLICATION

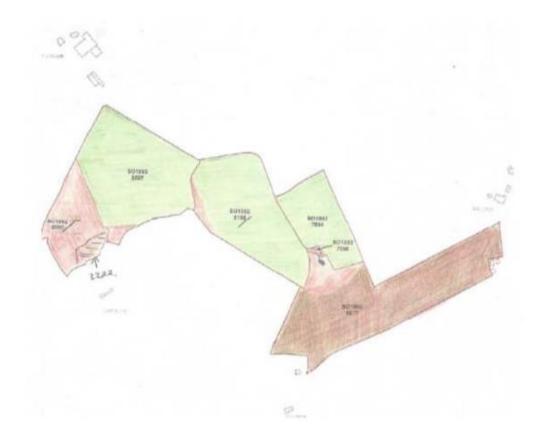
#### MAP KEY

A Manure Management Plan has been produced. In addition to identifying no-spread areas, high risk areas and those areas of the farm that are suitable for applications of manures for most of the year, the plan also assesses the amount of land available to take the manures produced. The map is colour coded: -

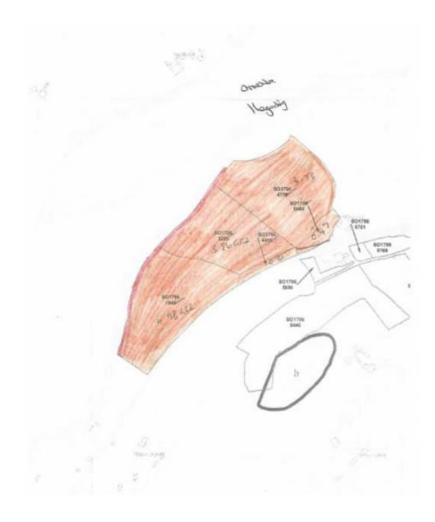
- Red = No-spread areas, e.g. yards; within 10 metres of a watercourse or 50 metres of a borehole, spring or well used for drinking or parlour washings. Steeply sloping fields of gradients 1 in 5 or steeper and habitat ground.
- Orange = Very High Risk. Steeply sloping fields of gradients 1 in 7; fields at risk of flooding; sandy or shallow soil over fissured rock; fields were drains have been installed during the past 12 months; poorly drained or waterlogged land; severely compacted soils, etc.
- Yellow = Moderate Risk. Slopes between 1 in 14 to 1 in 8; land sloping towards watercourses; imperfectly drained land.
- Green = Lower Risk. Remainder of land upon which manures are applied and which has not been subsoiled or mole ploughed within the past 12 months.
- White = Areas not used for operational reasons.

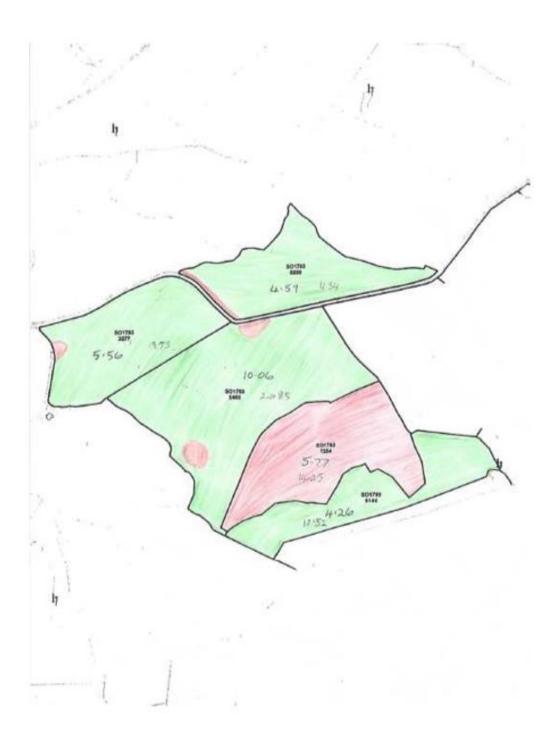












	Type of <i>livestock</i>	Col 1 Number of stock	Col 2 Total nitrogen produced by each unit of stock (kg/annum)	Col 3 Total nitrogen produced Col 1 x Col 2
Cattle				
Calf (all categori	es including veal) up to 3 months		8	
Dairy cow	From 3 months and less than 13 months		35	
to first calf	From 13 months and up to first calf		61	
	Annual milk yield over 9,000 litres		115	
Dairy cow after first calf reared	Annual milk yield 6,000-9,000 litres		101	
nist can reared	Annual milk yield less than 6,000 litres		77	
Beef cows or steers <sup>a</sup> to 25 months	From 3 months and less than 13 months		33	
	From 13 months and less than 25 months		50	
Beef cows or steers" from	Females or steers <sup>®</sup> for slaughter		50	
	Females for breeding weighing 500 kg or less		61	
25 months	Females for breeding weighing over 500 kg		83	
	Non-breeding 3 months and over		54	
Bulls	Breeding – from 3 months and less than 25 months		50	
	Breeding – from 25 months		48	
Sheep				
From 6 months u	ip to 9 months		2.0	
From 9 months t	o first lambing, first tupping or slaughter		1.4	
After lambing	Weighing less than 60 kg		7.6	
or tupping <sup>b</sup>	Weighing over 60 kg		12.0	
Goats, deer, ho	orses			
Goat			15.0	
Deer	Breeding		15.3	
Deel	Other		12.0	
Horse			21.0	

#### Template 2.3 – Total nitrogen produced by *livestock* on the *holding*

a – steer = castrated male.

 $b-\mbox{in the case of a ewe, this figure includes one or more suckled lambs until the lambs are aged 6 months.$ 

	Type of <i>livestock</i>	Col 1 Number of stock	Col 2 Total nitrogen produced by each unit of stock (kg/annum)	Col 3 Total nitrogen produced Col 1 x Col 2		
Pigs						
From 7 kg and le	iss than 13 kg		1.5			
From 13 kg and	less than 31 kg		5.2			
From 31 kg and	less than 66 kg		8.8			
	Intended for slaughter		12.0			
	Sows intended for breeding that have not yet had their first litter		13.9			
From 66 kg	Sows (including litters up to 7 kg) fed on a diet supplemented with synthetic amino acids		16.1			
5	Sows (including litters up to 7 kg) fed on a diet without synthetic amino acids		17.9			
	Breeding boars from 66 kg up to 150 kg		12.0			
	Breeding boars from 150 kg		17.5			
Poultry						
Chickens used for production	Less than 17 weeks		0.23			
of eggs for human	From 17 weeks (caged)		0.41			
consumption	From 17 weeks (not caged)		0.55			
Chicken raised for	or meat		0.39			
Chickens raised	Less than 25 weeks		0.31			
for breeding	From 25 weeks		0.74			
Turkeys	Male		1.37			
Turkeys	Female		1.03			
Ducks			0.91			
Ostriches		1.40				
Total nitrogen produced from <i>livestock</i> on the farm <b>2</b> G						

#### Template 2.3 continued – Total nitrogen produced by *livestock* on the *holding*

#### 4.0 Ammonia Modelling

Site Name	Upper Bryn Free Range Poultry	]	
Application Reference Nur	nt PAN-004244	]	
Emission Source NGR	Easting	Northing	Buffer = 90
Upper Bryn (Proposed)	316889	294446	Durier - 30
Black Hall	320270	294150	
Black Wood	315718	298869	
Belan Newydd	312323	297556	
Brynrorin	3142590	295607	
Cloddiau	315372	290890	
Type of animal I housing	Ventilation type	Emission Factor	Number
Layers	High Velocity	0.08	64,000
Layers	High Velocity	0.08	32,000
Layers	Low Velocity	0.08	32,000
Layers	High Velocity	0.035	16,000
Layers	High Velocity	0.035	32,000
Layers	High Velocity	0.035	32,800



Habiat Type	Habitat Name	NGR of closest point	NGR of closest point	Distance from Emission Source (m)	Emission rate (g/s)	Ammonia Soreening Tool Predicted Ammonia	Ammonia Screening Tool Predicted Deposition	Predicted Acidifcation (converted from AST Predicted	CLe Ammonia	Clo N Deposition	Clo Acid Deposition	PC as % of CLe Ammonia	PC as % of CLo N Denosition	PC as % of CLo Acid Deposition	Comments
e.g. SAC/SSSI/L₩S		Easting	Northing						µg/m <sup>3</sup>	kg N/ha/year	keqlhalyr	7.	7.	×.	
SAC SAC SAC SAC SAC SAC SAC	Montgomery Canal	316161	295126	985		0.032			3			1.1	=====	*****	Upper Bryn Black Hall
SAC	Montgomery Canal	316161	295126	4,247		0.012			3			0.4	=====	*****	Black Hall
SAC	Montgomery Canal	316161	295126	3,544		0.026			3			0.9	=====	*****	Black Wood Belan Newydd Brynrorin Cloddiau
SAC	Montgomery Canal	316161	295126	4,712		0.007			3			0.2	=====	*****	Belan Newydd
SAC	Montgomery Canal	316161	295126	1,870		0.029			3			1.0	=====	*****	Brynrorin
SAC	Montgomery Canal	161	295126	3,972		0.009			3			0.3		*****	Cloddiau
		×													
					Total:	0.115						3.8			
					Background:	1.930									
					PEC:	2.045									

Screening criteria → Associated distance										
Critical Level (ug/m3)		% of CLe	Distance (m)							
3	SAC SPA RAMSAR	4								
3	SSSI	20								
3	LWS, AW, LNR, NNR	100								

The above in combination assessment shows the predicted ammonia concentration at the point of Montgomery Canal SAC where ammonia is predicted to exceed 1% of the critical level (according to page 24 of the ammonia report). Above and below threshold farms since 2015 within 5km of this point were looked at as well as Upper Bryn. Farms prior to 2015 will be included in the background concentration so they are not considered to avoid double-counting.

Predicted ammonia contributions for each farm were calculated using the ammonia screening tool and added to the background concentration to give the total predicted environmental concentration (PEC). The PEC is 2.045ug/m3 which is below the Critical Level of this SAC (3ug/m3), therefore the in-combination assessment screens out.

# PLEASE READ THE SUBMITTED AMMONIA MODELLING REPORT OF A & S MODELLING DATA. The dates of the report are shown on the front page insertion overleaf.



A Report on the Modelling of the Dispersion and Deposition of Ammonia from the Existing and Proposed Free Range Egg-Laying Chicken Houses at Upper Bryn Farm, near Abermule in Powys

AS Modelling & Data Ltd. www.asmodata.co.uk

Prepared by Phil Edgington

philedgington@asmodata.co.uk 07483 340262 28<sup>th</sup> May 2021 Reviewed by Steve Smith

stevesmith@asmodata.co.uk 01952 462500 29<sup>th</sup> May 2021

# 5.0 Odour Modelling and Management Plans

A Dispersion Modelling Study of the Impact of Odour from the Existing and Proposed Free Range Egg-Laying Chicken Houses at Upper Bryn Farm, near Abermule in Powys

Prepared by Phil Edgington

AS Modelling & Data Ltd.

Email: <a href="mailto:philedgington@asmodata.co.uk">philedgington@asmodata.co.uk</a>

Telephone: 01952 462500

7<sup>th</sup> January 2019

# Introduction

AS Modelling & Data Ltd. has been instructed by Gail Jenkins, of Roger Parry & Partners LLP., on behalf of the W.L. Hamer, to use computer modelling to assess the impact of odour emissions from the existing and proposed free range egg-laying chicken houses at Upper Bryn Farm, Abermule, Montgomery, Powys. SY15 6JW.

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 likely internal odour concentrations and ventilation rates of the poultry houses and also upon figures mandated by Natural Resources Wales. 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.

This report is arranged in the following manner:

- Section 2 provides relevant details of the site and potentially sensitive receptors in the area.
- Section 3 provides some general information on odour, details of the method used to estimate odour emissions from the poultry house, relevant guidelines and legislation on exposure limits and where relevant, details of likely background levels of odour.
- Section 4 provides some information about ADMS, the dispersion model used for this study and details the modelling parameters and procedures.
- Section 5 contains the results of the modelling.
- Section 6 provides a discussion of the results and conclusions.

# **Background Details**

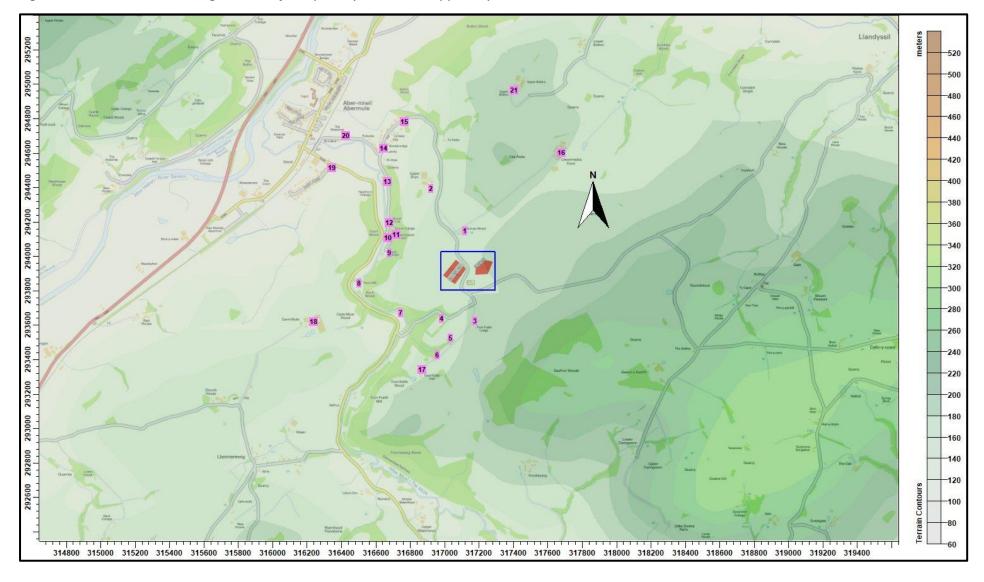
The farmstead at Upper Bryn is in a rural area around 1 km to the south-east of the village of Abermule in Powys. The site is at an elevation of around 175 m, with the land falling towards the River Severn Valley to the northwest and rising towards hills and mountains to the southeast. The surrounding land use is predominantly pasture, although there are some arable fields and wooded areas.

The existing poultry house at Upper Bryn is approximately 500 m to the south-south-east of the farm buildings. This poultry house provides accommodation for up to 32,000 egg-laying chickens and is ventilated by high speed ridge fans. Within the sheds the chickens are housed in vertical tiers and manure is removed twice weekly by a belt system and promptly taken off the site. The chickens have daytime access to an outdoor ranging area via a series of pop holes along the side of the house.

Under the proposal, a second poultry house would be constructed on a green-field site approximately 50 m to the west of the existing poultry house. This poultry house would provide accommodation for up to 32,000 egg-laying chickens and would be ventilated by high speed fans. A belt system would remove manure from the house twice weekly and the manure would be promptly taken off site. The chickens would have daytime access to outdoor ranging areas via a series of pop holes along the sides of the house

There are some isolated residences and commercial properties in the area surrounding the site of the existing and proposed poultry houses, the closest residences are at: Bronau Wood, which is approximately 190 m to the north; Fron Fraith Lodge which is approximately 260 m to the south and there is a caravan park approximately 230 m to the south-west of the poultry houses.

A map of the surrounding area is provided in Figure 1; the positions of the existing and proposed poultry houses are shown outlined in blue.





# **Odour, Emission Rates, Exposure Limits & Background Levels**

## 3.1 Odour concentration, averaging times, percentiles and FIDOR

Odour concentration is expressed in terms of European Odour Units per metre cubed of air  $(ou_E/m^3)$ . The following definitions and descriptions of how an odour might be perceived by a human with an average sense of smell may be useful, however, it should be noted that within a human population there is considerable variation in acuity of sense of smell.

- $1.0 \text{ ou}_{\text{E}}/\text{m}^3$  is defined as the limit of detection in laboratory conditions.
- At 2.0 3.0 ou<sub>E</sub>/m<sup>3</sup>, a particular odour might be detected against background odours in an open environment.
- When the concentration reaches around 5.0 ou<sub>E</sub>/m<sup>3</sup>, a particular odour will usually be recognisable, if known, but would usually be described as faint.
- At 10.0 ou<sub>E</sub>/m<sup>3</sup>, most would describe the intensity of the odour as moderate or strong and if persistent, it is likely that the odour would become intrusive.

The character, or hedonic tone, of an odour is also important; typically, odours are grouped into three categories.

Most offensive:

- Processes involving decaying animal or fish remains.
- Processes involving septic effluent or sludge.
- Biological landfill odours.

Moderately offensive:

- Intensive livestock rearing.
- Fat frying (food processing).
- Sugar beet processing.
- Well aerated green waste composting.

Less offensive:

- Brewery.
- Confectionery.
- Coffee roasting.
- Bakery.

Dispersion models usually calculate hourly mean odour concentrations and Environment Agency guidelines and findings from UK Water Industry Research (UKWIR) are also framed in terms of hourly mean odour concentration.

The Environment Agency guidelines and findings from UKWIR use the 98<sup>th</sup> percentile hourly mean; this is the hourly mean odour concentration that is equalled or exceeded for 2% of the time period considered, which is typically one year. The use of the 98<sup>th</sup> percentile statistic allows for some consideration of both frequency and intensity of the odours.

At some distance from a source, it would be unusual if odour concentration remained constant for an hour and in reality, due to air turbulence and changes in wind direction, short term fluctuations in concentration are observed. Therefore, although average exposure levels may be below the detection threshold, or a particular guideline, a population may be exposed to short term concentrations which are higher than the hourly average. It should be noted that a fluctuating odour is often more noticeable than a steady background odour at a low concentration. It is implicit that within the models' hourly averaging time and the Environment Agency guidelines and findings from UKWIR that there would be variation in the odour concentration around this mean, i.e. there would be short periods when odour concentration would be higher than the mean and lower than the mean.

The FIDOR acronym is a useful reminder of the factors that will determine the degree of odour pollution:

- Frequency of detection.
- Intensity as perceived.
- Duration of exposure.
- Offensiveness.
- Receptor sensitivity.

# **3.2 Environment Agency guidelines (Rebranded by Natural Resources Wales)**

In April 2011, the Environment Agency published H4 Odour Management guidance (H4). In Appendix 3 – Modelling Odour Exposure, benchmark exposure levels are provided. The benchmarks are based on the 98<sup>th</sup> percentile of hourly mean concentrations of odour modelled over a year at the site/installation boundary. The benchmarks are:

- $1.5 \text{ ou}_{\text{E}}/\text{m}^3$  for most offensive odours.
- 3.0 ou<sub>E</sub>/m<sup>3</sup> for moderately offensive odours.
- $6.0 \text{ ou}_{\text{E}}/\text{m}^3$  for less offensive odours.

Any modelled results that project exposures above these benchmark levels, after taking uncertainty into account, indicates the likelihood of unacceptable odour pollution.

# 3.3 UK Water Industry Research findings

The main source of research into odour impacts in the UK has been the wastewater industry. An in-depth study of the correlation between modelled odour impacts and human response was published by UKWIR in 2001. This was based on a review of the correlation between reported odour complaints and modelled odour impacts in relation to nine wastewater treatment works in the UK with on-going odour complaints. The findings of this research and subsequent UKWIR research indicated the following, based on the modelled 98<sup>th</sup> percentile of hourly mean concentrations of odour:

- At below 5.0 ou<sub>E</sub>/m<sup>3</sup>, complaints are relatively rare at only 3% of the total registered.
- At between 5.0 ou<sub>E</sub>/m<sup>3</sup> and 10.0 ou<sub>E</sub>/m<sup>3</sup>, a significant proportion of total registered complaints occur, 38% of the total.
- The majority of complaints occur in areas of modelled exposures of greater than  $10.0 \text{ ou}_{\text{E}}/\text{m}^3$ , 59% of the total.

# 3.4 Choice of odour benchmarks for this study

Odours from poultry houses are usually placed in the moderately offensive category. Therefore, for this study, the Environment Agency's benchmark for moderately offensive odours, a  $98^{th}$  percentile hourly mean of  $3.0 \text{ ou}_{\text{E}}/\text{m}^3$  over a one year period, is used to assess the impact of odour emissions from the proposed poultry unit at potentially sensitive receptors in the surrounding area.

#### 3.5 Quantification of odour emissions

Odour emission rates from poultry houses depend on many factors and may be variable. When only minimum ventilation is required, the odour emission rate may be relatively small, but in hot weather, ventilation requirements and odour emission rates are greater. The main source of odour from the existing and proposed poultry houses at Upper Bryn is, or would be, from the chimneys of the ridge mounted fans. Some fugitive emissions from open pop holes is be possible, but because the houses would normally be under negative pressure, these emissions are expected to be minimal. In order to prevent odours building up within the houses and provide negative pressure to prevent fugitive emissions, the modelling assumes that a minimum ventilation rate is maintained. The chickens have, or would have, access to ranging areas outside of the houses and some odour would arise from the manure deposited on the ranging areas. The modelling assumes that good practices for farm cleanliness are followed and that other sources of odour may be considered negligible.

Peak odour emission rates are likely to occur when the housing is cleared of spent litter at the end of each production cycle; in this case, approximately once per year. There is little available information on the magnitude of this peak emission, but it is likely to be greater than any emission that might occur whilst the birds are in the housing. The clearing of spent litter and manure usually takes one working day and it is normal to maintain ventilation during this time. There are measures that can be taken to minimise odour production whilst the housing is being cleared of spent litter and there is usually some discretion as to when the operation is carried out; therefore, to avoid high odour levels at nearby sensitive receptors, it may be possible to time the operation to coincide with winds blowing in a favourable direction. As the poultry houses would operate a belt system that enables litter to be removed from the house twice weekly, it is assumed that these emissions would be significantly less than a more traditional house where the bird droppings are allowed to accumulate in the house throughout the crop.

#### 3.5.1 Natural Resources Wales emission rate

Natural Resources Wales mandate modelling of a continuous emission rate based on a specific emission rate of 0.47  $ou_E$ /bird/s, but acknowledge that emission rates do in reality vary. This approach may either underestimate or overestimate emissions at any particular time and there can be no presumption that the underestimates or overestimates somehow cancel out. A summary of the NRW emission rates used in this study are provided in Table 1. As an example, a graph of the NRW specific emission rate from the the first year of the meteorological record is shown in Figure 2.

# 3.5.2 AS Modelling & Data Ltd. emissions model and methodology

For the calculation of the emission rates from the houses, the internal odour concentration is assumed to be a constant 750  $ou_E/m^3$ . This figure is based upon a review of available literature and measured concentrations from similar poultry houses that are available to AS Modelling & Data Ltd.

The ventilation rates used in the calculations are based on industry standard practices. For the calculations, the minimum ventilation rate is set at 1.0 m<sup>3</sup>-air/bird/h and the maximum ventilation rate is 7.5 m<sup>3</sup>-air/bird/h. If the external temperature is 13 Celsius, or lower, minimum ventilation only is assumed for the calculation. If the external temperature is 23 Celsius, or more, then the maximum ventilation rate is assumed. A transitional ventilation rate is calculated between these extremes.

Based upon these principles, an emission rate for each hour of the period modelled is calculated by multiplying the concentration by the ventilation rate. A summary of the AS Modelling & Data Ltd. modelled emission rates used in this study are provided in Table 2. As additional information, the 98<sup>th</sup> percentile emission rate is approximately 1.05 ou<sub>E</sub>/bird/s. As an example, a graph of the specific emission rate from the AS Modelling & Data Ltd. Model, over the first year of the meteorological record, is shown in Figure 2.

The chickens have, or would have access, to ranging areas. As a precautionary measure, it is assumed that  $20\%^1$  of the droppings would be deposited on the ranging area and an emission rate of 0.25 ou<sub>E</sub>/bird/s is used to calculate the emission rate. This emission is assumed to be continuous with no diurnal, seasonal, or temperature dependent variations. N.B. This emission is additional to emissions from the housing, is probably quite precautionary and is also intended to account for any fugitive emissions from the pop holes, which might occur when ventilation rates are low.

Soiled hard-standings and farm equipment at the site are a source of odour, these sources are usually minor in comparison to other emissions from the housing; nevertheless, a strict cleansing regime and the avoidance of even temporary storage of manures in trailers or spreading equipment at the site will help to ameliorate potential odour issues.

It should be noted that this figure is probably based primarily upon the widely accepted figure of 80% of dropping occurring at night when birds are housed and a single report; however, because, even under optimal conditions, not all of the birds go outside (50% is considered a high percentage), this does not imply that 20% of droppings occur outside the house.

Table 1. Summary of NRW continuous odour emission rates

Season	Average	Night-time Average	Day-time Average	Maximum
Winter	0.47	0.47	0.47	0.47
Spring	0.47	0.47	0.47	0.47
Summer	0.47	0.47	0.47	0.47
Autumn	0.47	0.47	0.47	0.47

Figure 2. NRW continuous specific emission rate over the first year of the meteorological record

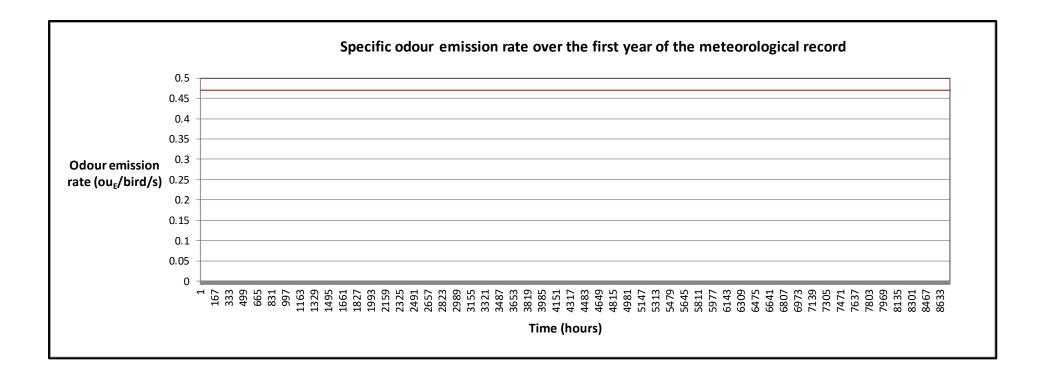
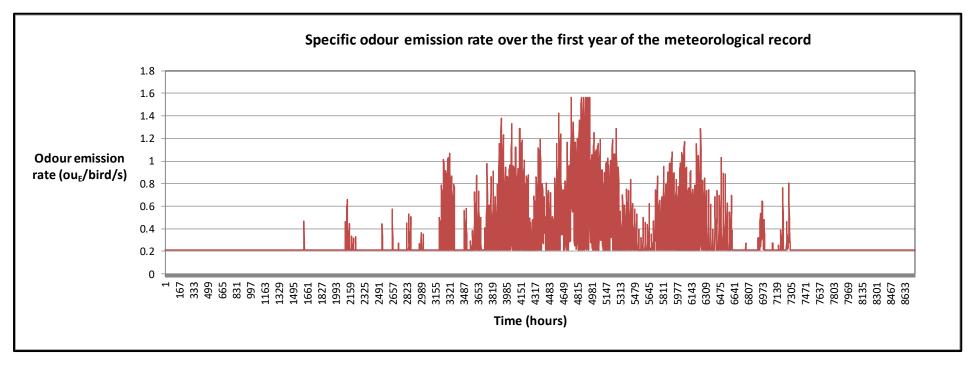


Table 2. Summary of AS Modelling & Data Ltd. Modelled odour emission rates

Emission rat	Emission rate (ou <sub>E</sub> /s per bird as stocked during crop)									
Season	Average	Night-time Average	Day-time Average	Maximum						
Winter	0.209	0.208	0.210	0.656						
Spring	0.309	0.231	0.386	1.562						
Summer	0.440	0.260	0.548	1.562						

Autumn	0.226	0.215	0.237	0.827
--------	-------	-------	-------	-------

Figure 3. AS Modelling & Data Ltd. Modelled specific emission rate over the first year of the meteorological record



# The Atmospheric Dispersion Modelling System (ADMS) and Model Parameters

The Atmospheric Dispersion Modelling System (ADMS) ADMS 5 is a new generation Gaussian plume air dispersion model, which means that the atmospheric boundary layer properties are characterised by two parameters; the boundary layer depth and the Monin-Obukhov length rather than in terms of the single parameter Pasquill-Gifford class.

Dispersion under convective meteorological conditions uses a skewed Gaussian concentration distribution (shown by validation studies to be a better representation than a symmetrical Gaussian expression).

ADMS has a number of model options including: dry and wet deposition; NO<sub>x</sub> chemistry; impacts of hills, variable roughness, buildings and coastlines; puffs; fluctuations; odours; radioactivity decay (and  $\gamma$ -ray dose); condensed plume visibility; time varying sources and inclusion of background concentrations.

ADMS has an in-built meteorological pre-processor that allows flexible input of meteorological data both standard and more specialist. Hourly sequential and statistical data can be processed and all input and output meteorological variables are written to a file after processing.

The user defines the pollutant, the averaging time (which may be an annual average or a shorter period), which percentiles and exceedance values to calculate, whether a rolling average is required or not and the output units. The output options are designed to be flexible to cater for the variety of air quality limits, which can vary from country to country and are subject to revision.

#### 4.1 Meteorological data

Computer modelling of dispersion requires hourly sequential meteorological data and to provide robust statistics, the record should be of a suitable length; preferably four years or longer.

The meteorological data used in this study is obtained from assimilation and short term forecast fields of the Numerical Weather Prediction (NWP) system known as the Global Forecast System (GFS). Observational meteorological data from Lake Vyrnwy and Shobdon have also been considered.

The GFS is a spectral model: the physics/dynamics model has an equivalent resolution of approximately 13 km; terrain is understood to be resolved at a resolution of approximately 2 km (with sub 13 km terrain effects parameterised) and data are archived at a resolution of 0.25 degrees (site specific data may be extrapolated from nearby archive grid points or a most representative grid point chosen). The GFS resolution adequately captures major topographical features and the broad-scale characteristics of the weather over the UK. Smaller scale topological features may be included in the dispersion modelling by using the flow field module of ADMS (FLOWSTAR). The use of NWP data has advantages over traditional meteorological records because:

- Calm periods in traditional observational records may be over represented, this is because the instrumentation used may not record wind speeds below approximately 0.5 m/s and start up wind speeds may be greater than 1.0 m/s. In NWP data, the wind speed is continuous down to 0.0 m/s, allowing the calms module of ADMS to function correctly.
- Traditional records may include very local deviations from the broad-scale wind flow that would not necessarily be representative of the site being modelled; these deviations are difficult to identify and remove from a meteorological record. Conversely, local effects at the site being modelled are relatively easy to impose on the broad-scale flow and provided horizontal resolution is not too great, the meteorological records from NWP data may be expected to represent well the broad-scale flow.
- Information on the state of the atmosphere above ground level which would otherwise be estimated by the meteorological pre-processor may be included explicitly.

The wind rose for the raw GFS data at the site of the poultry unit is shown in Figure 4a.

Wind speeds are modified by the treatment of roughness lengths (see Section 4.7) and because terrain data is included in the modelling, the raw GFS wind speeds and directions will be modified. The terrain and roughness length modified wind rose for the location of the

poultry houses is shown in Figure 4b. Note that elsewhere in the modelling domain, modified wind roses may differ markedly, particularly in more sheltered valleys and the resolution of the wind field in terrain runs is 100 m. Please also note that FLOWSTAR is used to obtain a local flow field, not to explicitly model dispersion in complex terrain as defined in the ADMS User Guide; therefore, the ADMS default value for minimum turbulence length has been amended.

Data from the meteorological recording stations at Lake Vyrnwy and Shobdon have also been considered. However, neither Lake Vyrnwy nor Shobdon has an aspect that in any way could be considered similar to the Upper Bryn; therefore, it should be noted that the frequency of winds from a particular direction in the Lake Vyrnwy and Shobdon data may be either high or low in comparison to what might occur at Upper Bryn, which means mean concentrations downwind may be either over or under predicted. Additionally, periods of light winds and calms cannot be properly modelled. Therefore, it is the opinion of AS Modelling & Data Ltd. that the results obtained using the GFS data, particularly when modified by using FLOWSTAR, should be given more weight when interpreting the results of the modelling.

The wind roses for Lake Vyrnwy and Shobdon are shown in Figures 4c and 4d.

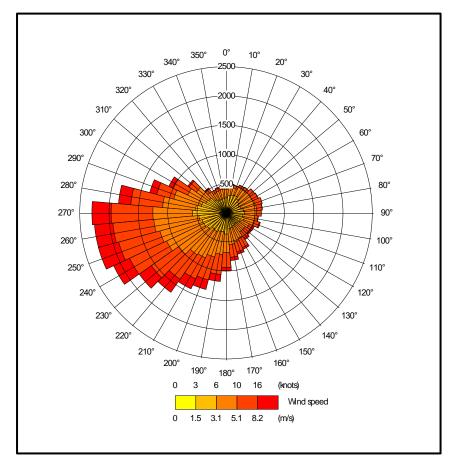


Figure 4a. The wind rose. Raw GFS derived data, for 52.619 N, 3.365 W, 2014-2017

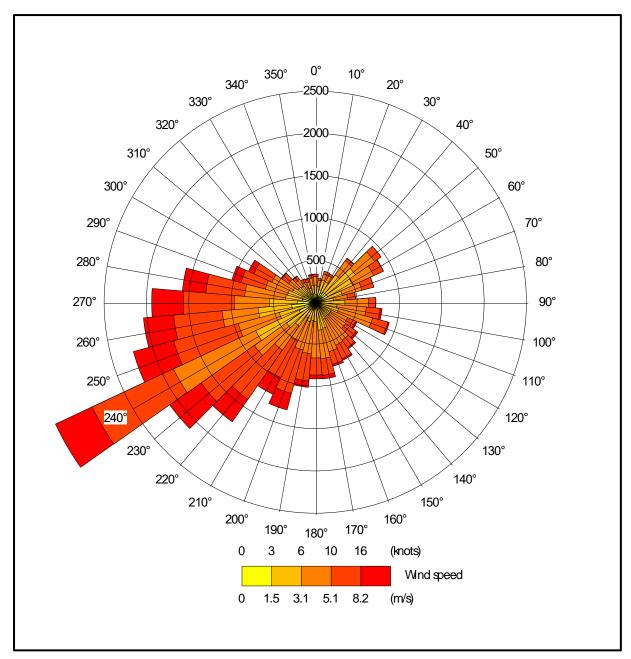


Figure 4b. The wind rose. FLOWSTAR modified GFS derived data for NGR 317130, 293940, 2014-2017

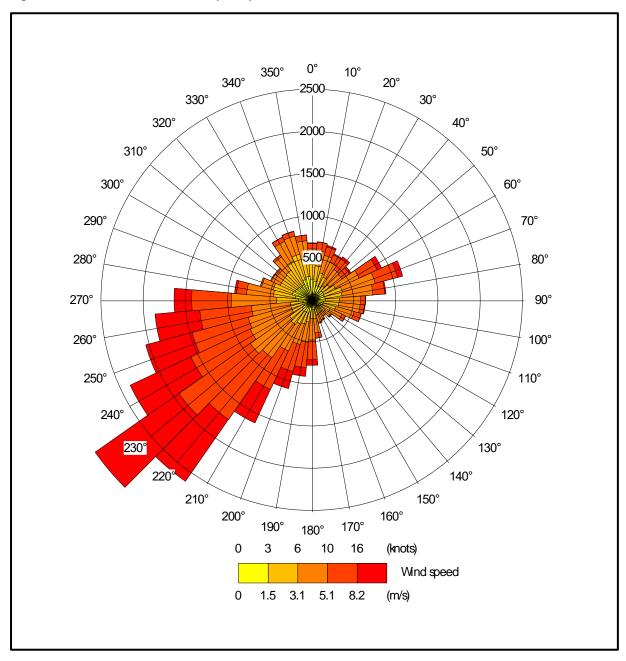


Figure 4c. The wind rose. Lake Vyrnwy, 2014 – 2017

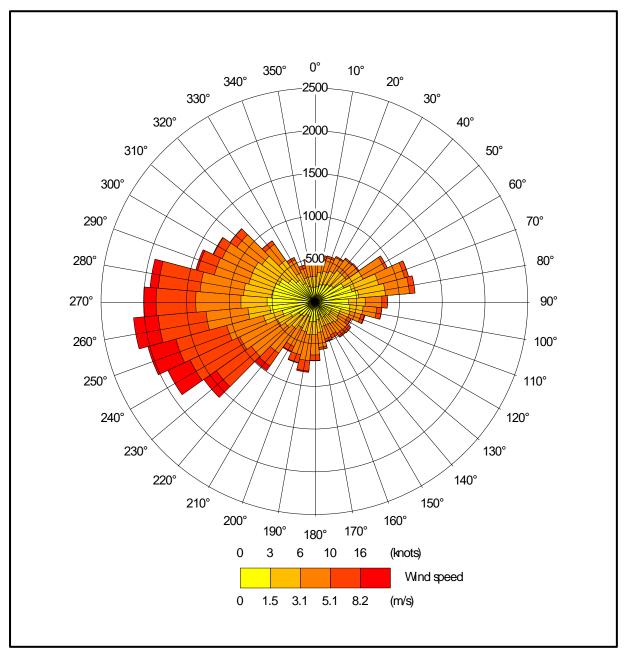


Figure 4d. The wind rose. Shobdon, 2014 – 2017

# 4.2 Emission sources

Emissions from the chimneys of the ridge fans that are, or would be, used to ventilate the poultry houses are represented by three point sources per house within ADMS (EX1 and PR1; a, b & c). Details of the point source parameters are shown in Table 3a. The positions of the point sources used are shown in Figure 5, where they are marked by red star symbols.

Table 3a. Po	int source	parameters
--------------	------------	------------

Source ID (Methodology)	Height (m)	Diameter (m)	Efflux velocity (m/s)	Emission temperature (°C)	Emission rate per source (ou <sub>E</sub> /s)
EX1 & PR1; a, b & c (AS Modelling & Data Ltd.)	6.0	0.8	11.0	Variable <sup>1</sup>	Variable <sup>1</sup>
EX1 & PR1; a, b & c (Natural Resources Wales)	6.0	0.8	11.0	21.0	5,013.3

1. Dependent on crop stage and ambient temperature.

The poultry houses would have ranging areas, which are represented by area sources within ADMS (EX1\_ran, PR1\_ranN and PR1\_ranS). Note that the area sources cover the parts of the ranges most likely to be used frequently and not the whole ranging areas. Details of the area source parameters are provided in Table 3b. The positions of the area sources are shown in Figure 5, where they are marked by red polygons.

Source ID	Area (m²)	Base height (m)	Emission temperature (°C)	Emission rate (ou <sub>E</sub> /s)
EX1_ran	5,303	0.0	Ambient	1,600
PR1_ranN	3,193	0.0	Ambient	800
PR1_ranS	2,739	0.0	Ambient	800

Table 3b. Area source parameters

# 4.3 Modelled buildings

The structure of the existing and poultry houses may affect the odour plumes from the point sources. Therefore, these building are modelled within ADMS. The positions of the modelled buildings may be seen in Figure 5, where they are marked by grey rectangles.

#### 4.4 Discrete receptors

Twenty-one discrete receptors have been defined at a selection of nearby residences and commercial properties. The receptors are defined at 1.5 m above ground level within ADMS and their positions may be seen in Figure 6, where they are marked by enumerated pink rectangles.

#### 4.5 Nested Cartesian grid

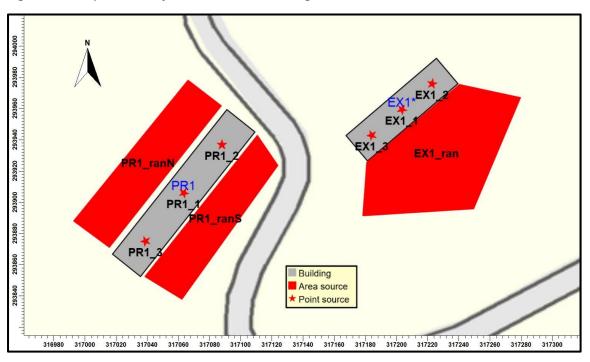
To produce the contour plots presented in Section 5 of this report, a nested Cartesian grid has been defined within ADMS. The grid receptors are defined at 1.5 m above ground level within ADMS. The positions of the grid receptors may be seen in Figures 6, where they are marked by green crosses bounded by a purple rectangle.

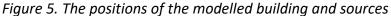
#### 4.6 Terrain data

Terrain has been considered in the modelling. The terrain data are based upon the Ordnance Survey 50 m Digital Elevation Model. A 6.4 km x 6.4 km domain has been resampled at 50 m horizontal resolution for use within ADMS. N.B. The resolution of FLOWSTAR is 64 x 64 grid points; therefore, the effective resolution of the wind field is 100 m.

#### 4.7 Other model parameters

A fixed surface roughness length of 0.25 m has been applied over the entire modelling domain. As a precautionary measure, the GFS meteorological data is assumed to have a roughness length of 0.225 m. The effect of the difference in roughness length is precautionary as it increases the frequency of low wind speeds and the stability and therefore increases predicted ground level concentrations.





 $\ensuremath{\mathbb{C}}$  Crown copyright and database rights 2019.

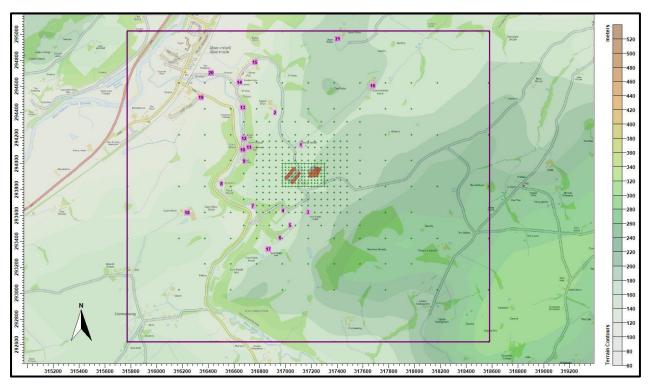


Figure 6. The discrete receptors and nested Cartesian grid receptors

# **Details of the Model Runs and Results**

For this study, the model was run with the calms and terrain modules in ADMS, effectively sixteen times, one for each year of the four year meteorological record and: using the AS Modelling & Data Ltd. emissions model with the GFS meteorological data and observational meteorological data from Lake Vyrnwy and Shobdon; using the NRW continuous emission rate with the GFS meteorological data

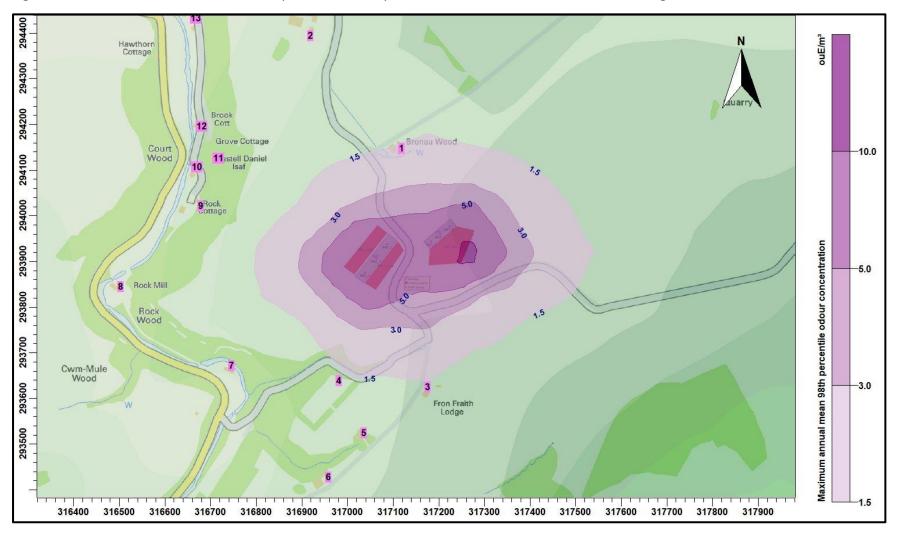
Statistics for the annual 98<sup>th</sup> percentile hourly mean odour concentration at each receptor were compiled for each of the modelling runs.

A summary of the results of these sixteen runs at the discrete receptors is provided in Table 4, where the maximum annual 98<sup>th</sup> percentile hourly mean odour concentrations are shown. A contour plot of the maximum annual 98<sup>th</sup> percentile hourly mean odour concentrations using GFS meteorological data is shown in Figure 7 for the AS Modelling & Data Ltd. emissions model.

In Table 4, predicted odour exposures in excess of the Environment Agency's benchmark of  $3.0 \text{ ou}_{\text{E}}/\text{m}^3$  as an annual 98<sup>th</sup> percentile hourly mean are coloured blue; those in the range that UKWIR research suggests gives rise to a significant proportion of complaints,  $5.0 \text{ ou}_{\text{E}}/\text{m}^3$  to  $10.0 \text{ ou}_{\text{E}}/\text{m}^3$  as an annual 98<sup>th</sup> percentile hourly mean, are coloured orange and predicted exposures likely to cause annoyance and complaint are coloured red.

Table 4. Predicted maximum annual 98<sup>th</sup> percentile hourly mean odour concentrations at the discrete receptors

			centile hourly	mean odour			
Receptor number X(m) Y(m)		Y(m)	GFS Calms Terrain AS Modelling & Data Emissions	Lake Vyrnwy Calms Terrain AS Modelling & Data Emissions	Shobdon Calms Terrain AS Modelling & Data Emissions	GFS Calms Terrain NRW Continuous Emissions	
1	317119	294147	1.61	1.39	1.98	1.35	
2	316919	294394	0.43	0.25	0.44	0.50	
3	317175	293625	1.37	2.18	1.60	1.36	
4	316981	293639	1.27	2.28	1.57	1.29	
5	317036	293524	0.86	1.62	0.87	0.92	
6	316958	293427	0.60	0.60 1.24 0.57		0.69	
7	316746	293672	0.84	0.84 1.34 1.62		1.30	
8	316504	293844	0.61	0.49	1.26	0.70	
9	316678	294021	0.67	0.63	1.11	0.66	
10	316671	294106	0.51	0.45	0.68	0.57	
11	316717	294126	0.56	0.46	0.66	0.65	
12	316680	294196	0.40	0.33	0.57	0.53	
13	316668	294434	0.27	0.21	0.29	0.37	
14	316644	294627	0.23	0.13	0.23	0.33	
15	316765	294783	0.22	0.11	0.19	0.32	
16	317678	294603	0.23	0.26	0.23	0.32	
17	316868	293339	0.39	0.81	0.39	0.48	
18	316238	293621	0.21	0.28	0.68	0.31	
19	316345	294512	0.14	0.11	0.14	0.20	
20	316424	294703	0.13	0.08	0.14	0.19	
21	317404	294965	0.13	0.11	0.14	0.17	



*Figure 7. Predicted maximum annual 98<sup>th</sup> percentile hourly mean odour concentration – AS Modelling & Data Ltd. emissions model* 

© Crown copyright and database rights 2019.

#### **Summary and Conclusions**

AS Modelling & Data Ltd. has been instructed by Gail Jenkins, of Roger Parry & Partners LLP., on behalf of the W.L. Hamer, to use computer modelling to assess the impact of odour emissions from the existing and proposed free range egg-laying chicken houses at Upper Bryn Farm, Abermule, Montgomery, Powys. SY15 6JW.

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 likely internal odour concentrations and ventilation rates of the poultry houses and also upon figures mandated by Natural Resources Wales. 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.

The modelling predicts that for the existing and proposed poultry houses at Upper Upper Bryn, the odour exposure would be well below the Environment Agency's benchmark for moderately offensive odours, which is a maximum annual 98<sup>th</sup> percentile hourly mean concentration of 3.0 ouE/m<sup>3</sup>, at all receptors.

# 1. References

Chartered Institution of Water and Environmental Management website. Control of Odour.

http://www.ciwem.org/policy-and-international/policy-position-statements/control-of-odour.aspx

Environment Agency, April 2007. H4 Odour Management, How to comply with your environmental permit.

http://a0768b4a8a31e106d8b0-50dc802554eb38a24458b98ff72d550b.r19.cf3.rackcdn.com/geho0411btqm-e-e.pdf

S. Fournela, F. Pelletierb, S. Godboutb. Odour emissions, hedonic tones and ammonia emissions from three cage layer housing systems.

Nimmermark S. & Gustafsson G. Influence of Temperature, Humidity and Ventilation Rate on the Release of Odour and Ammonia in a Floor Housing System for Laying Hens.

Hazard	Receptor	Pathwa y	Risk Management	Probabilit y of Exposure	Consequenc e	What is the overall
Odour from the manufacture and selection of feed	Neighbourin g dwelling houses within 400m of installation	Air	Measures as described in SGN EPR6.09 (Farming) Odour Management at Intensive Livestock Installations. No on site milling and mixing. Feed specifications prepared by the feed compounder' s nutrition	Unlikely	Odour annoyance	Not significant if managed carefully.
Odour from feed delivery or storage	Neighbourin g dwelling houses within 400m of installation	Air	specialist. Measures as described in SGN EPR6.09 Feed delivery will be sealed to minimise atmospheric dust. Any feed spillage of feed around bin is immediately swept up. Condition of feed bins is checked frequently so that any leaks or damage can be identified.	Unlikely	Odour annoyance	Not significant
Odours arising from problems with housing			Measures as described in SGN EPR6.09 The			

ventilation system, inadequate air movement within house leading to high humidity and wet litter. Inadequate system design, causing poor dispersal of odours	Neighbourin g dwelling houses within 400m of installation	Air	ventilation system will regularly adjusted according to age and requirements of the flock The ventilation will be designed to efficiently remove moisture from the house.	Unlikely	Odour annoyance	Not significant
Litter management : odours arising from wet litter (see above) The use of insufficient or poor quality litter. Spillage of water from drinking systems. Disease outbreaks, leading to wet litter.	Neighbourin g dwelling houses within 400m of installation	Air	Measures as described in SGN EPR6.09 Controls on feed and ventilation (see above) help to maintain litter quality. Additional controls include: insulated walls and ceilings to prevent condensation. Concrete floors to prevent water ingress. Stocking density at optimum level to prevent overcrowding . Use health plan, with	Unlikely	Odour annoyance	Not significant

			specialist			
			veterinary			
			input used as			
			necessary			
Carcase	Neighbourin		Measures as			
disposal:	g dwelling		described in			
inadequate	houses	Air	SGN EPR6.09		Odour	Not
storage of	within 400m		Carcasses are		annoyance	significant
carcasses on	of		placed in	Unlikely		
site.	installation		sealed			
			containers			
			awaiting			
			regular			
			collection by			
			a licensed			
			renderer. Litter is			
			carefully			
			placed into			
			trailers close			
			to the house			
	Neighbourin		entrances.			
House clean	g dwelling		Trailers are			
out	houses	Air	sheeted	Likely	Odour	Not
(de littering)	within 400m		before		annoyance	significant
	of		transporting			if carefully
	installation		off site. De			managed.
			littering will			
			be avoided at			
			weekends			
			during summer			
			months. No			
			litter is stored			
			on site. Litter			
			will be used			
			on operator			
			controlled			
			land in			
			compliance			
			with a			
			manure			
			management			
			plan and used			
			in the			
			Anaerobic			
			digester.			

House clean out (Disinfection and fumigation)	Neighbourin g dwelling houses within 400m of installation	Air	Carried out by specialist contractors using DEFRA approved chemicals observing correct	Unlikely	Odour annoyance	Not significant if carefully managed.
			correct dilution rates.			

The following tables detail the likely sources of Odour from the Free Range Poultry Installation at Upper Bryn – Laying Birds.

Actions and measures that will be taken to prevent where possible or minimise odour emissions at Upper Bryn.

The plan is to be reviewed every year, prior to any changes (major) being made to any operations, or following a complaint, or changes to any management plan the document is to be dated and signed.

The Free Range Laying Unit at Upper Bryn is based within two poultry houses, where the levels of odour would be at their highest concentration. As the birds range the extensive range area, the intensity of the odour is reduced as the birds spread out over the ranging area. This then results in a lower risk of odour intensity on those closest receptors to the installation.

ODOUR RELATED ISSUES	POTENTIAL RISKS	ACTIONS TAKEN TO REDUCE THE ODOUR AND ODOUR RISKS ON FARM	COMPLETION DATE
Free Range Egg Production	Odour Levels	Twice daily checks coinciding with bird inspections, normally between 07:00-10:00 hours and 16:00-19:00 hours. Any abnormalities to be recorded and investigated.	As and when required
Manufacture and selection of Feed	Milling and mixing of compound feeds. Use of poor quality and odorous ingredients. Feeds which are unbalanced leading to increased excretion of ammonia.	No onsite milling. Feed specifications are prepared by a Nutrition Specialist. Feed is supplied only from UKASTA accredited feed mills, so that only approved raw materials are used.	In place

		Protein is reduced in accordance with SGN EPR6.09 'How to comply with your environmental permit for intensive farming .'	
Feed Delivery and Storage	Spillage of feed during delivery and storage. Creation of dust during feed delivery.	Feed delivery systems are sealed to minimise atmospheric dust. Any spillage of feed around the bin is immediately swept up. The condition of the feed bins is regularly checked and routine maintenance undertaken if required. Feed deliveries are monitored to avoid dust and spills.	In place
Ventilation and Dust	Inadequate air movement in the house, leading to high humidity and wet litter. Inadequate system design, causing poor dispersal of odours. Extraction fans located close to sensitive receptors Dust	Use of high velocity roof extraction fans in all houses to aid dispersion, checked prior to the cycle commencement by a qualified electrician who will provide 24 hour breakdown cover. The ventilation system is regularly checked and adjusted to match the age and requirements of the flock.	In Place
		The ventilation system is designed to efficiently remove	

		moisture from the house. Humidity recorded daily and maintained in the range of 55-65% keeping a balance of dry litter and avoiding dust production. Stock inspections carried out only by trained staff to avoid panicking birds therefore creating dust. Dust levels if present controlled during clean out operations.	
Litter Management	Odours arising from wet litter	Controls on feed and ventilation (see above) help to maintain litter quality. Additional controls include; Use of nipple drinkers with drip cups to minimise spillage. Daily checks of drinker height and pressures to avoid capping. Insulated walls and ceilings to prevent condensation. Concrete falls to prevent ingress of water.	In Place

		Stocking lough at	
		Stocking levels at	
		optimum to prevent	
		overcrowding.	
		Use of veterinarian	
		bespoke health plan.	
Carcase Disposal	Inadequate storage of	Carcasses placed into	In Place
	carcasses on site.	plastic sealed bags,	
		store in sealed,	
		shaded and vermin	
		proof containers away	
		from sensitive	
		receptors.	
		Frequent collection of	
		carcasses.	
		Daily levels of	
		mortalities recorded	
		with abnormalities	
	Creation of duct	investigated.	
House Clean Out	Creation of dust	Litter carefully placed	In Place
	associated with litter	into trailers.	
	removal from houses.	Trailers sheeted	
	Use of odorous	before leaving fill	
	products during	position.	
	cleaning.		
	cicaning.	Only DEFRA approved	
		and suitable products	
		used. Chemicals	
		containers triple	
		washed at point of	
		use.	
		Wash water sump	
		levels monitored	
		during washing and	
		emptied as required	
		to prevent overfill.	
Used Litter	Storage of used litter	No storage on site at	In Place
	on site.	any time, storage in	
		sealed manure store.	
	Transport of litter and		
	landspreading.	Belt removal twice	
		weekly with covered	

			<b></b>
		trailer removed from	
		the units immediately.	
		All trailers sheeted	
		before leaving fill	
		position.	
		Avoidance of double	
		handling.	
		Litter used on	
		operators controlled	
		land and sold to third	
		parties.	
Washing operations	Loss of dirty water to	Use of specialist	In Place
including vehicles	land or watercourse	contractors for	
		washing operations.	
		Bespoke terminal	
		hygiene program	
		followed, detailing	
		quantities of water	
		and chemical dilution	
		rates.	
		Key staff monitoring	
		washing operations	
		ensuring effective	
		drainage to dirty	
		water tanks.	
		Dirty water tanks	
		, monitored during	
		wash down to	
		maintain freeboard.	
		Vehicle washing at	
		designated wash	
		point.	
		All sediment traps and	
		drained cleaned both	
		before and after	
		washing operations.	
Fugitive Emissions	Leaks to doors, bin	Checks to feed	In Place
-	pipes, feed bins, fuel	storage and fuel pipes	
	and chemical storage.	as per	
<u> </u>	. 0	1 .	

		Fuel oil in approved bunded storage tanks.	
		Chemicals – only small amounts of footdip disinfectant held on	
		site in secondary	
Dirty Mator	Standing dirty water	containment.	In Place
Dirty Water Management	Standing dirty water during the production	Working areas around houses are concreted	
management	cycle or at clean out.	and kept cleaning	
		during production	
	Application of dirty	cycle.	
	water to land.		
		At clean out dirty water from houses	
		together with lightly	
		contaminated yard	
		wash is directed to the	
		storage tanks before	
		removed off site and	
Abnormal Operations	Water leak/pipe	spread to land. Water consumption	In Place
	failure	monitored daily	
		ensuring early	
		detection, wet area –	
		blanket covered with top up bedding	
		material to prevent	
	Bird Health/Sickness	increased odour.	
		Veterinarian	
		contacted (24 hour	
		care) Litter covered	
		with fresh top up bedding to minimise	
		increased odour until	
		bird health recovered.	
		Abnormal events	
		documented, dated	
		and signed, appropriate plans	
		reviewed and updated	
		to prevent re	
		occurrence.	

Odour from production or storage areas.	No storage or production of odorous waste on site.	In Place
	Waste management plan in force detailing types and quantities produced along with disposal routes. Records to be kept on site.	
	Cleaning Chemicals Supplied and used by cleaning contractor	
	production or storage	production or storage areas.production of odorous waste on site.Waste management plan in force detailing types and quantities produced along with disposal routes. Records to be kept on site.Cleaning Chemicals Supplied and used by

6.0 Noise Management Plans

#### Sensitive Receptors

The impact of the proposed development potentially could have an impact on local residential properties. Upper Bryn lies within a rural area where livestock farming and operations on the land are undertaken on a daily basis. Operations undertaken by the existing farm business would be the housing and feeding of livestock, application of manure to the land and storage of manure if required, both of the aforementioned activities could result in the potential for odour. The table below outlines sensitive receptors within the vicinity of the site.

The nearest local residential property is some 179 metres away, Bronau Wood Dwelling from the proposed extension. This is a converted former farm building, it is in the ownership of the applicant WL Hamer, and is to be occupied by Ms Irene Lloyd.

The current background sound was 20 dB LA90T as measured for the first poultry unit. This is detailed below from a Noise Report prepared by Mr John Waring for the first application for a poultry unit. With the unit now in place the background level will have already increased.

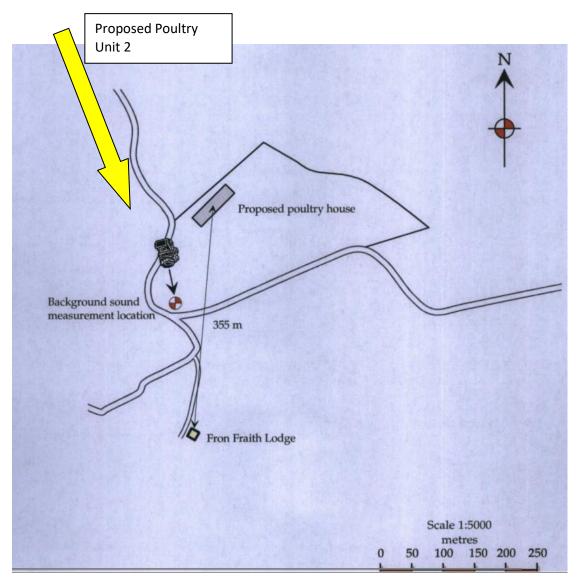
Specific sound level = 20 dB Laeq

Character Correction = 4 dB

Rating Level = 24 dB Lat

Deduct background level – 20 dB LA90

Assessment level = 4 dB



The proposed poultry unit at Upper Bryn shall have 16 mechanical fans which will be used during periods of hot weather only. The proposed poultry unit will use natural ventilation from the pop holes of the poultry unit for the majority of the year. It is paramount that mechanical fans are installed within the building as they are used to control the temperature, it is vitally important to bird welfare during periods of hot weather.

Upper Bryn is situated in a rural location and the main sources of the noise in this area emanate from agricultural operations, road traffic and aircraft movements as a result of training in the area. Peak agricultural traffic is generated between May and the end of August when the annual harvest is undertaken. The proposals at Upper Bryn would not result in an exceedance of noise levels in the area.

The operation of the proposed Poultry Unit at Upper Bryn will generate less sources of noise and vibration than the existing farmstead, the proposal does not have the potential to generate significant additional sources. The positioning of the proposed Poultry Unit amongst the existing farm buildings and surrounded by extensive existing landscapes also maintains a level of comparative impact in respect of noise and vibration.

During de-commissioning of the Poultry Unit, the impact of the noise would be minimal and similar to the construction phase and shall be over a short period of time.

The birds in the unit are female and are not noisy whilst in the ranging area. No cockerels are housed within the building.

The applicants would aim to mitigate the noise emanating from their Poultry Unit with basic design procedures. Most of the noise emanating from the Poultry Unit once operational will be internal and therefore housed within the proposed building, therefore, there will be no negative impact on the residential properties from the housing of 32,000 birds on site. The building has been sited as close as possible to the existing farmstead taking into consideration existing landscape features, constraints of the existing farmstead and in a site next to the existing poultry unit, which has the benefit of the surrounding topography together with intervening features such as trees and hedgerows which shall act as a baffle to any sound emanating from the development.

The building will be insulated and will use double glazed windows thus reducing any noise from the development.

Within the building sixteen mechanical ventilation fans will be installed. Around the ventilation fans noise baffles will be used thus reducing any negative noise resulting from the ventilation fans. The extractor fans are thermostatically controlled so will only operate when required, tending to be more frequently during hot weather. The augers used to provide feed around the unit will only operate six times per day for nine minutes resulting in very little noise.

The noise levels associated with the unit are negligible, and would be set against the existing background noise levels of the existing farm, surrounding roads and agricultural uses.

#### <u>MITIGATION</u>

A number of practices will be adhered to ensure that there is no impact by the development upon residential dwellings these include:

- Limiting the hours of delivery to avoid sensitive periods, this refers to both birds and feed;
- The building itself and internal equipment will receive regular maintenance to ensure that excessive noise and vibration are not generated;

• Placing silencers and engine covers on machinery and engines within the building should noise issues become a problem:

• If machinery is found to be generating excessive noise, the machinery shall be replaced and immediately taken out of the building unless it is critical to bird welfare that the machinery is present within the building. Repairs shall be undertaken within 24 hours;

No high revving of engines will be undertaken on farm;

• Bleepers on machinery will remain as this is a health and safety matter, however, their use shall be limited to non-sensitive hours;

• As this is a purpose built building, it is modern in its design and will use the latest technologies to limit the noise impact of the development;

• Mechanical ventilation will operate only during hot weather reducing any potential noise. They are positioned in the ridge of the building to reduce their vibration.

The predicted sound from shed one was assessed against background sound and the impact on local residents was predicted to be low. The provision of a second shed was not alter this prediction and the impact would still be low.

ManagementMeasures asMeasures asdescribed inSGN EPR6.09(Farming)Noise Issuesfrom largeNeighbourvehiclesingAirLivestockUtravelling toand from farmhouseswithinare requiredinstallationonto andndue	Unlikely		Risk
Noise Issuesdescribed in SGN EPR6.09 (Farming) NoiseNoise IssuesManagement at Intensivefrom largeNeighbour ingat IntensivevehiclesingAirLivestockU Installations.and from farmhouses withinAll vehicles are required to be driven installatioAll vehicles onto and offsite with	Unlikely		
consideration for neighbours. Timed delivery restrictions can be implemented (07.00 and 20.00hrs) to minimise disturbance. Bird catching frequently occurring during night time (reduced bird stress) All vehicles regularly maintained to minimise engine noise. Roadways are free from		Noise annoyance	Not significant if managed carefully.

			<u> </u>			,
			selection			
			made with			
			due			
			consideration			
			to nearby			
			neighbours.			
			Measures as			
			described in			
			SGN EPR6.09			
Larga vahielas	Noighbour		Vehicles well	Unlikely	Noise	Not
Large vehicles	Neighbour	۸:		Uninkely		
delivering/colle	ing	Air	maintained		annoyance	significant
cting from site,	dwelling		and driven			
litter removal,	houses		slowly on			
removal of	within		site. Engines			
dirty water	400m of		not left			
	installatio		idling.			
	n		Audible			
			reversing			
			warnings			
			mostly during			
			daylight g			
			hours,			
			excepting			
			during night			
			catching.			
			Dirty water			
			and litter			
			removal			
			during			
			daylight			
			hours.			
			Measures as			
Small vehicle	Neighbour		described in			
movements	ing		SGN EPR6.09	Unlikely	Noise	Not
Mobile Source	dwelling	Air	Vehicles		annoyance	significant
	houses		driven slowly		,	
	within		on site for			
	400m of		night			
	installatio		catching. Low			
			risk for other			
	n					
			small vehicle			
			movements			
			during			
			daylight			
			hours.			

Feed transfer	Neighbour		Vehicles well			
from lorry to	ing	Air	maintained	Unlikely	Noise	Not
bins	dwelling		and designed	-	annoyance	significant
Fixed Source	houses		to minimise			
	within		noise during			
	400m of		transfer.			
	installatio					
	n					
	Neighbour		Efficient			
Ventilation	ing	Air	extraction	Unlikely	Noise	Not
Fans	dwelling		fans matched		annoyance	significant
Fixed Source	houses		to size and			
	within		population			
	400m of		within house.			
	installatio		Regularly			
Alarm	n Naiabhaur		maintained.			
System/Standb	Neighbour ing	Air	System tested	Unlikely	Noise	Not
y Generator	dwelling	All	weekly	Uninkery	annoyance	significant
Fixed Source	houses		(Mondays		annoyance	Significant
	within		mid-morning			
	400m of		to reduce			
	installatio		disturbance)			
	n		Specialist			
			maintenance			
			contract in			
			operation.			
			Frequent			
			electrical			
			servicing.			
Chickens	Neighbour		Low risk			
Mobile Source	ing	Air	during laying	Unlikely	Noise	Not
	dwelling		period.		annoyance	significant
	houses		Noise during			
	within		catching			
	400m of installatio		minimised by careful bird			
			handling by			
	n		trained			
			catchers.			
			Prompt			
			departure of			
			loaded			
			lorries.			
Personnel	Neighbour		Staff and			
Mobile Source	ing	Air	contractors	Unlikely	Noise	Not
	dwelling		required to		annoyance	significant

	houses		carry out			
	within		their			
	400m of		respective			
	installatio		duties			
	n		without			
			creating			
			excessive			
			noise.			
Repairs and	Neighbour		Repairs			
Servicing	ing	Air	required are			
_	dwelling		carried out	Unlikely	Noise	Not
	houses		with due		annoyance	significant
	within		regard for			_
	400m of		possible			
	installatio		noise			
	n		nuisance and			
			unless			
			exceptional			
			are carried			
			out during			
			normal			
			working			
			hours along			
			with routine			
			servicing.			

The Free Range layers within the installation are housed within the two poultry houses as detailed on the installation plan, where levels of noise would be at their highest concentration.

As the birds range the intensity of noise is reduces, as the birds spread out over the extensive range area, having the opportunity to range over four metres square per bird.

The above reduces the risk of the noise levels increasing for receptors close to the site boundary, as the majority of the birds would be unlikely to range more than 100 metres from the housing.

The main noise sources or noise operations are listed below;

- 1) Ventilation fans
- 2) Feed deliveries to the units
- 3) Egg Collection
- 4) Feeding systems
- 5) Fuel deliveries
- 6) Alarm systems
- 7) Bird catching
- 8) Cleaning out
- 9) Maintenance and repairs
- 10) Set up and placements
- 11) Generator testing

POTENTIAL NOISE	<b>TECHNIQUES TO LIMIT</b>	IN PLACE YES/NO	COMPLETION DATE
PROBLEMS	LEVELS OF NOISE		
Ventilation Fans	<ol> <li>Noise to be as- sessed twice per day at 07:00 -</li> </ol>	YES	
	10:00 hrs and 16:00 – 19:00 hrs	YES	
	<ol><li>High velocity fans reducing the num-</li></ol>	YES	
	ber of fans 3) Fans operated on	YES	
	an intermittent system	YES	
	<ol> <li>Regular end of cy- cle maintenance by qualified Elec- trician.</li> </ol>		

Feed Deliveries	1) Delivery lorries	YES	
	and vehicles for site mill fitted with silencers	YES	
	2) Larger capacity ve- hicles delivering to installation reduc- ing number of de-		
	liveries or collec- tions		Continuous
	<ul> <li>3) Road maintenance</li> <li>4) Time restrictions         <ul> <li>on deliveries and</li> <li>collections if required 07:00 hours</li> <li>– 19:00 hours</li> </ul> </li> </ul>	YES	
Feeding Systems	<ol> <li>Daily inspections of bin stocks to prevent augers running empty 07:00-10:00 hrs</li> </ol>	YES	
	16:00-19:00 hrs 2) Internal feeders checked twice per day to ensure cor- rect operation of systems	YES	
	07:00-10:00 hrs 16:00-19:00 hrs 3) Regular end of cy- cle maintenance	YES	
	by qualified elec- trician.		
Fuel Deliveries	Restrict time if required to 07:00 – 19:00 hrs		
Alarm Systems	Use of mobile phones or pagers	YES	
Bird Catching	<ol> <li>Fully trained and advised teams of the need to keep noise to a mini- mum.</li> <li>Crates to be</li> </ol>	YES	
	placed carefully on concrete yard prior to house entry	YES	

		1	[
	<ol> <li>Lorries scheduled to minimise dura-</li> </ol>	YES	
	tion of catch 4) Doors operated for	YES	
	entry and exit of forklift	YES	
	5) Lorries parked as		
	close as possible to doors to reduce		
	forklift travel 6) Screen curtains fit-		
	ted to lorries		
Clean Out	<ol> <li>Litter removal dur- ing normal work-</li> </ol>	YES	
	ing hours 2) Trailers parked as close as possible to	YES	
	the doors to re- duce loader travel	YES	
	3) Large trailers used to reduce traffic	YES	
	<ol> <li>Washing done dur- ing normal work- ing hours</li> </ol>		
	Normal working hours 07:00 – 19:00 hrs		
Maintenance and Repair	<ol> <li>During normal working hours with the exception of break- downs/emergen-</li> </ol>	YES	
	cies 2) Routine end of cy- cle servicing Normal Working hours	YES	
	07:00-19:00 hours		
Set Up	Normal Working hours 07:00-19:00 hours.	YES	
Generator (Standby)	Test run during normal working hours 07:00 – 19:00 hours.	YES	

## 7.0 Dust, Bioaerosol Management Plan

Hazard	Receptor	Pathway	Risk Managem ent	Exposure	Consequence	Overall Risk
To Air						
Dust: Sources: Feed.	Neighbouri ng dwelling houses within 100m of installation Surroundin g Land and Vegetation	Air	Feed delivered in sealed systems. Dust socks fitted to silo exhaust pipes. Closed system delivery of feed from silo to poultry house. Feed spills dealt with promptly. Feed milling in open environme nt	Dust could have the potential to reach nearby neighbour s and surroundin g land during certain weather conditions.	Nuisance – dust on surrounding vegetation, cars and clothing. Smothering and direct damage to nearby vegetation.	Not significant if carefully managed.
Bedding	Neighbouri ng dwelling houses within 100m of installation Surroundin g Land and Vegetation	Air	Use of suitable bedding materials, not blown into poultry house.	Dust could have the potential to reach nearby neighbour s and surroundin g land during certain weather conditions.	Nuisance – dust on surrounding vegetation, cars and clothing. Smothering and direct damage to nearby vegetation.	Not significant if carefully managed.
Litter System	Neighbouri ng dwelling houses within 100m of installation Surroundin	Air	Belt removal of litter twice weekly into covered trailer.	Dust could have the potential to reach nearby neighbour s and	Nuisance – dust on surrounding vegetation, cars and clothing. Smothering	Not significant if carefully managed.

	g Land and Vegetation		Aviary housing system within 5 years of granting of permit.	surroundin g land during certain weather conditions.	and direct damage to nearby vegetation.	
Ventilation	Neighbouri ng dwelling houses within 100m of installation Surroundin g Land and Vegetation	Air	Use of roof extraction fans on all houses within the installatio n.	Dust could have the potential to reach nearby neighbour s and surroundin g land during certain weather conditions.	Nuisance – dust on surrounding vegetation, cars and clothing. Smothering and direct damage to nearby vegetation.	Not significant if carefully managed.
House Cleaning	Neighbouri ng dwelling houses within 100m of installation Surroundin g Land and Vegetation	Air	Litter removed carefully during cleanout minimisin g dust. Full trailers sheeted before leaving installatio n.	Dust could have the potential to reach nearby neighbour s and surroundin g land during certain weather conditions.	Nuisance – dust on surrounding vegetation, cars and clothing. Smothering and direct damage to nearby vegetation.	Not significant if carefully managed.
Bird Numbers/Ty pe	Neighbouri ng dwelling houses within 100m of installation Surroundin g Land and Vegetation	Air	Free Range Layers 64,000. Reduced time within poultry house reducing dust levels.	Dust could have the potential to reach nearby neighbour s and surroundin g land during certain weather conditions.	Nuisance – dust on surrounding vegetation, cars and clothing. Smothering and direct damage to nearby vegetation.	Not significant

#### 8.0 Pollution

## 1. Introduction

This plan is submitted in relation to the planning application for the erection of a free range poultry unit extension at Upper Bryn.

The construction and site operation of the development will implement reasonable avoidance measures and controls to ensure the development does not create any unacceptable adverse impact on the immediate environment.

The plan has been written with regard to national legislation and especially that of The Water Resources (Control of Agricultural Pollution) (Wales) Regulations 2021.

## 2. Potential Pollutants

There are several potential pollutants that could arise from the construction and operation of a free range poultry unit, and therefore it is important to identify these elements prior to works commencing, in order to put some safeguarding measures in place, to reduce and minimise any potential pollution to the immediate and surrounding environment.

The main potential pollutants for this scheme are identified below:

- Silt
- Cement and Concrete
- Fuel/chemical spills
- Foul water drainage

Each potential pollutant will be considered separately and the appropriate measures will be set out to minimise any potential pollution each activity might create.

## 3. Silt

Silt is a common potential issue in any development, as groundworks have the ability to implicate the existing surface water systems.

- During construction, we will minimise the amount of soul stripping in order to minimise the volume of contaminated surface water run-off.
- We will only remove vegetation from areas that need to be exposed in the near future.
- Plant and wheel washing facilities will be implemented during construction works, of which will be:
  - on a hard standing area at least 10 metres from any watercourse,
  - The run off from this area will be collected in a sump, of which will be disposed via a tanker off site.
- The site access road will be brushed and scraped regularly to reduce dust and mud deposits.

• Preventative measures such as silt fences/bales will be placed on top of slopes to reduce the risk of silt contamination.

#### 4. Cement and concrete

It is acknowledged that concrete and cement are very alkaline and corrosive and can cause pollution. Given that the development includes both elements to construct the building and hardstanding, it is important to put some measures in place to minimise the risk of pollution. The measures proposed for the concrete and cement mixing and washing area are to be implemented as follows:

- They are to be sited a minimum of 10m from any watercourse or surface water drain to minimise the risk of run off.
- Have a re-circulation system for water reuse to minimise the risk of pollution.
- Any wash water from this process will be collected and contained in order for it to be disposed off-site.

#### 5. Fuel and Chemical spills

Given the limited amount of time any machinery will be on site, it is highly unlikely that any fuel or chemical spills will occur. However if refuelling takes place, the following steps will be taken:

- refuel mobile plant in a designated area, on an impermeable base away from drains or watercourses
- use a bunded bowser
- supervise all refuelling and bulk deliveries
- check the available capacity in the tank before refuelling
- don't jam open a delivery valve
- check hoses and valves regularly for signs of wear
- turn off valves after refuelling and lock them when not in use
- position drip trays under pumps to catch minor spills
- keep a spill kit with sand, earth or commercial products for containment of spillages
- provide incident response training to the staff and contractors

If any fuel or chemical spill does occur during construction or operation, a spill kit containing sand/earth will be used immediately.

### 6. Foul water drainage

A dirty water tank will be installed underground to retain all contaminated water and wash out water. The dirty water will then be collected and taken off site by a sealed tanker and disposed of whenever it is full.

The drainage system implemented will ensure that the foul water and clean water are kept separate and therefore no clean water will be contaminated. Each of the water systems will remain separate to avoid any contamination of the surface water.

## 7. Incident response

If any pollution incident occurs, the developer and applicant will report the incident immediately to NRW. The potential incidents include any spillage, contaminated run-off, flooding, damage to habitats. Staff will be informed of their duty to report such incidents and carry out the work to minimise the risk of any pollution incidents occurring.

## 8. Conclusion

Considering the proposed measures that will be implemented during construction and operation, there is minimal risk of any pollution occurring during the development operation or construction.

IN THE EVENT OF ANY POLLUTION INCIDENT OR TO PREVENT POTENTIAL POLLUTION CALL NATURAL RESOURCES WALES 03000 653 000 9.0 Energy Efficiency Management Plan

The correct environment for the birds is maintained in the sheds through a combination of ventilation fans located in the roof all of the poultry houses.

Each shed will be monitored by a computer system, which automatically controls and records the humidity and the temperature.

Control sensors will be checked regularly and kept clean so they are able to detect the temperature at the stock level.

Ventilation rates will be computer controlled to minimise, as far as the indoor requirements allow heat losses from the sheds.

Fans will be fitted with back draft shutters to reduce heat loss.

The sheds will be maintained in good condition, cracks and open seams will be repaired.

The sheds will be fully insulated with a U-Value of approximately 0.4 W/m2/°C to reduce condensation and heat lost.

The sheds will be constructed to ensure litter is dry and friable.

The concrete flooring will be maintained and cracks will be repaired.

Each shed will have a damp proof course.

Nipple drinking system reduces spillage of water.

#### Electricity

The ventilation fans in the sheds have been selected so that they are appropriate power and size for the sheds.

The computer control systems control the ventilation for maximum efficiency i.e. one fan operating at full capacity rather than two operating at half their capacity.

The fans are low energy per m3 of air. The fans are regularly maintained, and cleared of debris.

Low energy light bulbs will be used in the control/vestibule areas, the office and stores.

Fluorescent lights will be used in the sheds.

We operate a variable lighting period during the crop cycle.

## Fuel Oil

The standby generator is regularly maintained in accordance with the manufacturers' instructions to ensure it operates efficiently.

A breakdown of delivered and primary energy consumption will be recorded and provided to Natural Resources Wales annually in the following format

Energy Source Delivered	Energy Consumption Units	% of Total	
Electricity	Kwh		
Gas Oil	Litres		

#### **10.0** Pre Consultation

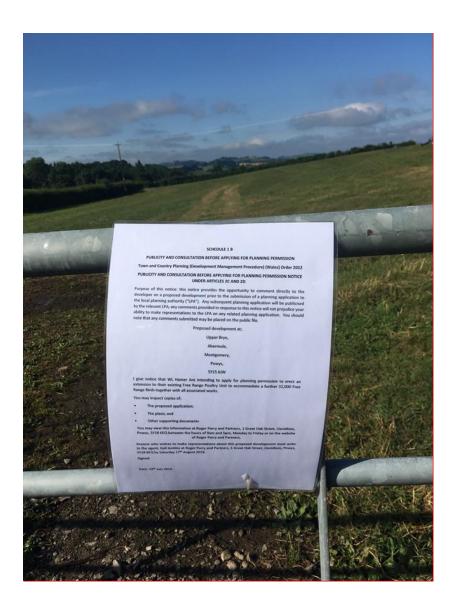
#### Notice

The proposed development was advertised for a period of no less than 28 days before submitted the application for the proposed development.

Notices were served upon the Local Community Council and County Councillor.

Formal notices were submitted to all Statutory Consultees. Notices were served on neighbours within 400 metres of the proposal.

A site notice was also displayed.



Please see below the letters sent to the Local County Councillor and Local Community Council;

Ref: GL/Upper Bryn

Gwilym J. Rippon Fellow SLCC, Cert HE Ceg

Clerk to Abermule and Llandyssil Community Council

12, Agincourt Drive,

Guilsfield,

Welshpool,

Powys,

SY21 9NA

19<sup>th</sup> July 2019

Dear Clerk

Town and Country Planning (Development Management Procedure) (Wales) (Amendment) Order 2016

#### PRE CONSULTATION

#### Proposed Free Range Poultry Unit Extension and all other associated works at Upper Bryn,

#### Abermule, Montgomery, Powys, SY15 6JW

In accordance with the 2016 Order please find attached herewith notice of the intention of my clients, WL Hamer of Upper Bryn to submit an application to Powys County Council for the erection of an extension to the existing Free Range Poultry Unit upon farm.

The full planning application proposed to be submitted can be viewed at the offices of Roger Parry and Partners, 1 Great Oak Street, Llanidloes, Powys, SY18 6EQ between the hours of 9:00 am and 17:00 Monday to Friday or on the website of Roger Parry and Partners.

Please do not hesitate to contact myself, the agent for the application, Mrs Gail Jenkins on 07498 717 778 should you require any further information or to make an appointment to view the file and I will endeavour to help.

Your Ref:

FAO County Councillor Pugh Upper Llegodig House

Abermule

Montgomery

Powys

SY15 6JY

19<sup>th</sup> July 2019

Dear County Councillor Pugh

Town and Country Planning (Development Management Procedure) (Wales) (Amendment) Order 2016

PRE CONSULTATION

Proposed Free Range Poultry Unit Extension and all other associated works at Upper Bryn,

Abermule, Montgomery, Powys, SY15 6JW

In accordance with the 2016 Order please find attached herewith notice of the intention of my clients, WL Hamer of Upper Bryn to submit an application to Powys County Council for the erection of an extension to the existing Free Range Poultry Unit upon farm.

The full planning application proposed to be submitted can be viewed at the offices of Roger Parry and Partners, 1 Great Oak Street, Llanidloes, Powys, SY18 6EQ between the hours of 9:00 am and 17:00 Monday to Friday or on the website of Roger Parry and Partners.

Please do not hesitate to contact myself, the agent for the application, Mrs Gail Jenkins on 07498 717 778 should you require any further information or to make an appointment to view the file and I will endeavour to help.

Please see below the letters sent to the adjoining properties within 400 metres;

😹 🛛 Bronau Wood Dwelling

😸 Fron Fraith Lodge

- Captains Pitch Cottage
- Sommunal Mill, known as the Stables
- Middle Mill

Ref:	GL/	Upper	Bryn
------	-----	-------	------

Your Ref:

19<sup>th</sup> July 2019

Dear

## Town and Country Planning (Development Management Procedure) (Wales) (Amendment) Order 2016

#### PRE CONSULTATION

#### Proposed Free Range Poultry Unit Extension and all other associated works at Upper Bryn,

#### Abermule, Montgomery, Powys, SY15 6JW

In accordance with the 2016 Order please find attached herewith notice of the intention of my clients, WL Hamer of Upper Bryn to submit an application to Powys County Council for the erection of an extension to the existing Free Range Poultry Unit upon farm.

The full planning application proposed to be submitted can be viewed at the offices of Roger Parry and Partners, 1 Great Oak Street, Llanidloes, Powys, SY18 6EQ between the hours of 9:00 am and 17:00 Monday to Friday or on the website of Roger Parry and Partners.

Please do not hesitate to contact myself, the agent for the application, Mrs Gail Jenkins on 07498 717 778 should you require any further information or to make an appointment to view the file and I will endeavour to help.

Please see below the letters sent to Statutory consultees;

Ref: GL/Upper Bryn

Your Ref:

Cadw

Welsh Government

**Plas Carew** 

Unit 5/7 Cefn Coed

Parc Nantgarw

Cardiff

CF15 7QQ

19<sup>th</sup> July 2019

Dear Sir/Madam

Town and Country Planning (Development Management Procedure) (Wales) (Amendment) Order 2016

#### PRE CONSULTATION

#### Proposed Free Range Poultry Unit Extension and all other associated works at Upper Bryn,

#### Abermule, Montgomery, Powys, SY15 6JW

In accordance with the 2016 Order please find attached herewith notice of the intention of my clients, WL Hamer of Upper Bryn to submit an application to Powys County Council for the erection of an extension to the existing Free Range Poultry Unit upon farm.

The full planning application proposed to be submitted can be viewed at the offices of Roger Parry and Partners, 1 Great Oak Street, Llanidloes, Powys, SY18 6EQ between the hours of 9:00 am and 17:00 Monday to Friday or on the website of Roger Parry and Partners.

Please do not hesitate to contact myself, the agent for the application, Mrs Gail Jenkins on 07498 717 778 should you require any further information or to make an appointment to view the file and I will endeavour to help.

Your Ref:

CPAT

41 Broad Street

Welshpool

Powys

SY21 7RR

By Email only: markwalters@cpat.org.uk

19<sup>th</sup> July 2019

Dear Sir

# Town and Country Planning (Development Management Procedure) (Wales) (Amendment) Order 2016

#### PRE CONSULTATION

## Proposed Free Range Poultry Unit Extension and all other associated works at Upper Bryn,

#### Abermule, Montgomery, Powys, SY15 6JW

In accordance with the 2016 Order please find attached herewith notice of the intention of my clients, WL Hamer of Upper Bryn to submit an application to Powys County Council for the erection of an extension to the existing Free Range Poultry Unit upon farm.

The full planning application proposed to be submitted can be viewed at the offices of Roger Parry and Partners, 1 Great Oak Street, Llanidloes, Powys, SY18 6EQ between the hours of 9:00 am and 17:00 Monday to Friday or on the website of Roger Parry and Partners.

Please do not hesitate to contact myself, the agent for the application, Mrs Gail Jenkins on 07498 717 778 should you require any further information or to make an appointment to view the file and I will endeavour to help.

Your Ref:

Highways Powys County Council Spa Road East Llandrindod Wells Powys LD1 5LG

19<sup>th</sup> July 2019

Dear Sir/Madam

Town and Country Planning (Development Management Procedure) (Wales) (Amendment) Order 2016

PRE CONSULTATION

Proposed Free Range Poultry Unit Extension and all other associated works at Upper Bryn,

#### Abermule, Montgomery, Powys, SY15 6JW

In accordance with the 2016 Order please find attached herewith notice of the intention of my clients, WL Hamer of Upper Bryn to submit an application to Powys County Council for the erection of an extension to the existing Free Range Poultry Unit upon farm.

The full planning application proposed to be submitted can be viewed at the offices of Roger Parry and Partners, 1 Great Oak Street, Llanidloes, Powys, SY18 6EQ between the hours of 9:00 am and 17:00 Monday to Friday or on the website of Roger Parry and Partners.

Please do not hesitate to contact myself, the agent for the application, Mrs Gail Jenkins on 07498 717 778 should you require any further information or to make an appointment to view the file and I will endeavour to help.

Your Ref:

Natural Resources Wales North Planning

BY EMAIL ONLY

northplanning@cyfoethnaturiolcymru.gov.uk

19<sup>th</sup> July 2019

Dear Sir/Madam

Town and Country Planning (Development Management Procedure) (Wales) (Amendment) Order 2016

PRE CONSULTATION

Proposed Free Range Poultry Unit Extension and all other associated works at Upper Bryn,

#### Abermule, Montgomery, Powys, SY15 6JW

In accordance with the 2016 Order please find attached herewith notice of the intention of my clients, WL Hamer of Upper Bryn to submit an application to Powys County Council for the erection of an extension to the existing Free Range Poultry Unit upon farm.

The full planning application proposed to be submitted can be viewed at the offices of Roger Parry and Partners, 1 Great Oak Street, Llanidloes, Powys, SY18 6EQ between the hours of 9:00 am and 17:00 Monday to Friday or on the website of Roger Parry and Partners.

Please do not hesitate to contact myself, the agent for the application, Mrs Gail Jenkins on 07498 717 778 should you require any further information or to make an appointment to view the file and I will endeavour to help.

Your Ref:

Severn Trent Water Ltd

**Customer Relations** 

PO Box 5310

Coventry

CV3 9FJ

BY EMAIL ONLY and POST: APPlanning@hdcymru.co.uk

19<sup>th</sup> July 2019

Dear Sir/Madam

Town and Country Planning (Development Management Procedure) (Wales) (Amendment) Order 2016

PRE CONSULTATION

Proposed Free Range Poultry Unit Extension and all other associated works at Upper Bryn,

#### Abermule, Montgomery, Powys, SY15 6JW

In accordance with the 2016 Order please find attached herewith notice of the intention of my clients, WL Hamer of Upper Bryn to submit an application to Powys County Council for the erection of an extension to the existing Free Range Poultry Unit upon farm.

The full planning application proposed to be submitted can be viewed at the offices of Roger Parry and Partners, 1 Great Oak Street, Llanidloes, Powys, SY18 6EQ between the hours of 9:00 am and 17:00 Monday to Friday or on the website of Roger Parry and Partners.

Please do not hesitate to contact myself, the agent for the application, Mrs Gail Jenkins on 07498 717 778 should you require any further information or to make an appointment to view the file and I will endeavour to help.

Your Ref:

FAO Rachel Probert Powys County Council Ecologist Powys County Council Spa Road East Llandrindod Wells Powys LD1 5LG

19<sup>th</sup> July 2019

Dear Sir/Madam

## Town and Country Planning (Development Management Procedure) (Wales) (Amendment) Order 2016

#### PRE CONSULTATION

#### Proposed Free Range Poultry Unit Extension and all other associated works at Upper Bryn,

#### Abermule, Montgomery, Powys, SY15 6JW

In accordance with the 2016 Order please find attached herewith notice of the intention of my clients, WL Hamer of Upper Bryn to submit an application to Powys County Council for the erection of an extension to the existing Free Range Poultry Unit upon farm.

The full planning application proposed to be submitted can be viewed at the offices of Roger Parry and Partners, 1 Great Oak Street, Llanidloes, Powys, SY18 6EQ between the hours of 9:00 am and 17:00 Monday to Friday or on the website of Roger Parry and Partners.

Please do not hesitate to contact myself, the agent for the application, Mrs Gail Jenkins on 07498 717 778 should you require any further information or to make an appointment to view the file and I will endeavour to help.

Please see below the notices sent to all relevant parties;

SCHEDULE 1C Article 2D

# CONSULTATION BEFORE APPLYING FOR PLANNING PERMISSION

# Town and Country Planning (Development Management Procedure) (Wales) Order 2012

# CONSULTATION BEFORE APPLYING FOR PLANNING PERMISSION

# NOTICE UNDER ARTICLE 2D

(to be served on specialist consultees, as defined by article 2(1) of the Town and Country Planning (Development Management Procedure) (Wales) Order 2012

Purpose of this notice: this notice comprises a formal request for a pre-application consultation response under article 2D of the Town and Country Planning (Development Management Procedure) (Wales) Order 2012.

Proposed development at

Upper Bryn,

Abermule,

Montgomery,

Powys,

SY15 6JW

I give notice that WL Hamer

Are intending to apply for planning permission for the Erection of an extension to their existing free range poultry unit together will all associated works.

A copy of the proposed application; plans; and other supporting documents are attached/can be viewed online at http://www.rogerparry.net/consultation-area.html

In accordance with the requirements of article 2E of the Town and Country Planning (Development Management Procedure) (Wales) Order 2012, a consultation response must be sent to Gail Jenkins (gail@rogerparry.net) by Saturday 17<sup>th</sup> August 2019.

Signed:

Date: 19<sup>th</sup> July 2019

# SCHEDULE 1 B

# PUBLICITY AND CONSULTATION BEFORE APPLYING FOR PLANNING PERMISSION

# Town and Country Planning (Development Management Procedure) (Wales) Order 2012

# PUBLICITY AND CONSULTATION BEFORE APPLYING FOR PLANNING PERMISSION NOTICE UNDER ARTICLES 2C AND 2D

Purpose of this notice: this notice provides the opportunity to comment directly to the developer on a proposed development prior to the submission of a planning application to the local planning authority ("LPA"). Any subsequent planning application will be publicised by the relevant LPA; any comments provided in response to this notice will not prejudice your ability to make representations to the LPA on any related planning application. You should note that any comments submitted may be placed on the public file.

Proposed development at;

Upper Bryn,

Abermule,

Montgomery,

Powys,

SY15 6JW

I give notice that WL Hamer Are intending to apply for planning permission to erect an extension to their existing Free Range Poultry Unit to accommodate a further 32,000 Free Range Birds together with all associated works.

You may inspect copies of;

- The proposed application;
- The plans; and
- Other supporting documents

You may view this information at Roger Parry and Partners, 1 Great Oak Street, Llanidloes, Powys, SY18 6EQ between the hours of 9am and 5pm, Monday to Friday or on the website of Roger Parry and Partners.

Anyone who wishes to make representations about this proposed development must write to the agent, Gail Jenkins at Roger Parry and Partners, 1 Great Oak Street, Llanidloes, Powys, SY18 6EQ by Saturday 17<sup>th</sup> August 2019.

Signed:

Date: 19th July 2019

Responses received;

## СРАТ

From: Mark Walters <<u>mark.walters@cpat.org.uk</u>>
Sent: 22 July 2019 11:17
To: Gail Jenkins <<u>gail@rogerparry.net</u>>
Subject: RE: Pre Consultation Upper Bryn Poultry Unit, Abermule

Dear Gail

Thank you for the early consultation on this application.

I can confirm that there are no archaeological implications for the proposed development at this location.

Kind regards

Mark Walters

-----

Mark Walters Development Control Archaeologist / Swyddog Rheoli Datblygiad

Ffôn / Tel: 01938 553670 Mobile: 07736 163148

E-bost / E-mail: <u>mark.walters@cpat.org.uk</u>

Ymddiriedolaeth Archaeolegol Clwyd-Powys, 41 Stryd Lydan, Y Trallwng, SY21 7RR Swyddfa Gofrestredig fel yr uchod. Rhif Cwmni 1212455, Rhif Elusen 508301, Sefydliad Cofrestredig IfA, Rhif 6.

Clwyd-Powys Archaeological Trust, 41 Broad Street, Welshpool, SY21 7RR Registered Office as above. Company No 1212455, Charity No 508301. Chartered Institute for Archaeologists Registered Organisation No 6.

## **COMMUITY COUNCIL**

From: Gwilym Rippon <<u>llandyssilcommunitycouncil@yahoo.co.uk</u>>
Sent: 09 August 2019 00:00
To: Gail Jenkins <<u>gail@rogerparry.net</u>>
Cc: Roger Parry <<u>roger@rogerparry.net</u>>
Subject: pre planning consultation

Gail

The Council have asked me to thank you for your attendance at last nights meeting. It is rather unprecedented but they were so impressed at the manner and detail in which you presented your clients application they have instructed me to pass on their thoughts to you. You have explained, answered and covered every detail much to the thanks of the Community Council. It is a shame that others who undertake pre planning consultation are not as accommodating and forthcoming with information as you were.

Once again thank you for your attendance last night.

Gwilym Rippon Cert HE CEG CiLCA (England & Wales) Fellow SLCC, Clerk to Abermule with Llandyssil Community Council

Web address
http://www.abermulewithllandyssilcommunitycouncil.org.uk

Tel No. 01938 554065

## NATURAL RESOURCES WALES



Ein cyf/Our ref: SO19/GB/CAS-95107-T9R2

Swyddfa Llywodraeth Cymru/Welsh Government Building, Rhodfa Padarn, Llanbadarn Fawr, Aberystwyth SY23 3UR

northplanning@cyfoethnaturiolcymru.gov.uk 03000 65 4680

24/09/2019

Town and Country Planning (Development Management Procedure) (Wales) (Amendment) Order 2016 Notice Pre-Application Consultation under Article 2D:

Er sylw / For the attention of: Rosina Bloor

Annwyl / Dear Rosina Bloor,

- BWRIAD / PROPOSAL: Statutory pre-application prior to applying for planning permission for the erection of an extension to their existing free range poultry unit together with all associated works
- LLEOLIAD / LOCATION: Upper Bryn, Abermule, Montgomery, Powys SY15 6JW (\$0170938).

Thank you for consulting Cyfoeth Naturiol Cymru / Natural Resources Wales about the above, which was received on 20/07/2019.

Please note that our comments are without prejudice to any comments we may wish to make when consulted on any subsequent planning application or permit (either at pre-application or application stage) for the proposed development. At that time there may be new information available which we will need to consider in making a formal response.

We have considered your enquiry in relation to our Development Planning topic list. We advise that the following matters are relevant to your site / proposed development and suggest you consider these further prior to the submission of any planning application.

Based on the information submitted to us, we have significant concerns with the development as currently proposed. On this basis we would recommend to the Local Planning Authority (LPA) that they should only grant planning permission if the following requirements are met, and the condition below is attached. Otherwise, we would object to this proposal.

Requirement 1 – Amendment of details in the Manure Management Plan Requirement 2 – Amendment of Ranging Area Plan to include a buffer zone of 50m around the well

Subject to the satisfaction of these requirements, we would request the following condition:

Croesewir gohebiaeth yn y Gymraeg a'r Saesneg Correspondence welcomed in Welsh and English

www.cyfoethnaturiolcymru.gov.uk www.naturalresourceswales.gov.uk

Condition 1 – To prevent pollution to watercourses during the construction and operational phases of the proposal, the development shall be carried out in accordance with the:

- Drainage Plan ('Proposed egg production unit at Upper Bryn', drawing no. GEJ/WL/005 dated 12/06/2019 by Roger Parry & Partners).
- ii) <u>Pollution Prevention Plan (Section 8.0 Pollution of the document titled 'Planning</u> Justification Statement', prepared for WL Hamer by Roger Parry & Partners)
- iii) Manure Management Plan (subject to the satisfaction of Requirement 1)
- iv) Ranging Area Plan (subject to the satisfaction of Requirement 2).

### Protected Site and Aerial Emissions

We have reviewed the detailed modelling report (Smith, S (5<sup>th</sup> January 2019) 'A Report on the Modelling of the Dispersion and Deposition of Ammonia from the Existing and Proposed Free Range Egg-Laying Chicken Houses at Upper Bryn Farm, near Abermule in Powys'. By AS Modelling & Data Ltd (unpublished) submitted in support of this proposal.

The background ammonia concentration (annual mean) in the area around Upper Bryn and the wildlife sites is 1.78µg/m<sup>3</sup>. The background nitrogen deposition rate to woodland is 30.24kgN/ha/yr and to short vegetation is 18.90kgN/ha/yr. The source of these background figures is the Air Pollution Information System (APIS, January 2019).

A permit application was received on 06/02/2019, and therefore the assessment of air quality impacts from the proposed poultry unit have been assessed on the post-April 2017 thresholds.

Intensive agricultural units have the potential to impact protected sites thorough aerial emissions (ammonia and nitrogen deposition). NRW assesses the air quality impact a unit may have on European protected sites and Sites of Special Scientific Interest (SSSIs) within a screening distance of 5km of the unit.

We note that a permit reference: EPR/BB3297FH for two sheds to house 64,000 layer chickens was issued for the site on 05/06/2019.

In conclusion, we are satisfied that the process contributions of ammonia and nitrogen deposition from the proposed unit are below the thresholds we apply in our assessment of potential impacts on SSSIs and SACs.

### Manure Management Plan

We have reviewed the manure management plan (found in the document titled 'Planning Justification Statement', prepared for WL Hamer by Roger Parry & Partners) submitted in support of this proposal.

We consider the correct Nitrogen emission factor has been used, and the risk maps include the correct buffers for manure application.

Requirement 1 – Amendment of details in the Manure Management Plan

 The Nitrogen calculations only calculate the livestock for the housed period, therefore the N produced by all livestock on the farm will need to be calculated for the whole 12 months regardless of if they are housed or not. We should insist on calculations of the nutrient loading for all manures generated over a 12 month period and the land that may receive this either by spreading or from grazing deposition in order to assess against the maximum guide of 250 kg/ha farm limit. This will certainly mean that more manure must be exported to meet the 250kg farm limit.

It is proposed that poultry manure will be stored in a shed prior to spreading. If manure is to be stored in a structure such as a shed, this must meet the storage standards of SSAFO.

#### Ranging Area Plan

We have reviewed the Ranging Area Plan (plan titled 'Range Plan', drawing no. GEJ/WL/006 dated 12/06/2019 by Roger Parry & Partners) submitted in support of this proposal.

Requirement 2 – Amendment of Ranging Area Plan to include a buffer zone of 50m around the well

We note there is a well marked on the plan. No buffer zone has been included around it. A 50m buffer zone should be marked around all sensitive receptors such as wells, springs and boreholes within 50m of the boundary of the ranging area. The ranging area plan must be amended to include a 50m buffer zone around the well.

#### Drainage Plan

We have reviewed the drainage plan submitted in support of this proposal ('Proposed egg production unit at Upper Bryn', drawing no. GEJ/WL/005 dated 12/06/2019 by Roger Parry & Partners).

The drainage plan shows the clean surface water being drained to a soakaway system. The dirty water will be drained separately to an underground tank built to comply with the SSAFO standards.

Provided the drainage system is built in compliance with this plan, the proposal is unlikely to cause pollution to the wider environment.

#### Pollution Prevention Plan – Construction and Management

We have reviewed the Pollution Prevention Plan (Section 8.0 Pollution of the document titled 'Planning Justification Statement', prepared for WL Hamer by Roger Parry & Partners) submitted in support of this proposal.

Provided the construction works takes place in accordance with this plan, the proposal is unlikely to adversely impact the surrounding environment. Please do not hesitate to contact us if you require further information or clarification of any of the above.

Our comments above only relate specifically to matters that are included on our consultation topics list (September 2018) which is published on our website:

(https://cdn.naturalresources.wales/media/686847/dpas-consultation-topics-august-2018eng.pdf?mode=pad&rnd=131819256840000000). We have not considered potential effects on other matters and do not rule out the potential for the proposed development to affect other interests, including environmental interests of local importance.

### Advice for the Developer:

### Environmental Permitting Regulations

A permit referenced: EPR/BB3297FH for two sheds to house 64,000 layer chickens was issued for the site on 05/06/2019.

The grant of planning permission does not permit activities that require consent, licence or permit under other legislation. It is the applicant's responsibility to ensure that all relevant authorisations are obtained prior to any works commencing on site.

The written consent of NRW or registration for exemption by the developer will be required for any discharge (e.g. foul drainage to watercourse/ditch etc.) from the site and may also be required for certain discharges to land. All necessary NRW consents or exemptions will need to be obtained prior to works progressing on site.

### Advice on Poultry Units

Advice on poultry units can be found in NRW's guidance document 'GN020 Assessing the impact of ammonia and nitrogen on designated sites from new and expanding intensive livestock units' and 'GN021 Poultry Units: planning permission and environmental assessment' available on our website: <u>https://naturalresources.wales/quidance-and-advice/business-sectors/farming/good-farming-practice/?lang=en</u>

### Abstractions

Applicants intending to supply new units from ground or surface waters are advised to check the abstraction limits and apply for a permit to abstract if required. <u>https://naturalresources.wales/apply-for-a-permit/water-abstraction-licences-and-impoundment-licences/?lang=en</u>

#### Discharges

The written consent of NRW or registration for exemption by the developer will be required for any discharge from the site (e.g. foul drainage to a watercourse) and may also be required for certain categories of discharges to land. All necessary NRW consents, or exemptions must be obtained prior to works progressing on site.

https://naturalresources.wales/apply-for-a-permit/water-discharges/discharges-to-surfacewater-and-groundwater/environmental-permitting-for-discharges-to-surface-water-andgroundwater/?lang=en

The applicant should be advised that, in addition to planning permission, it is their responsibility to ensure that they secure all other permits/consents relevant to their development.

## Yn gywir / Yours sincerely

Geraint Blayney

Ymgynghorydd Cynllunio Datblygiad/Development Planning Advisor Gwasanaeth Cynghori Cynllunio Datblygiad/Development Planning Advisory Service

## LOCAL RESIDENT RESPONSES

John & Laura Daley Fronfraith Hall Abermule Powys SY15 6NN

16<sup>th</sup> August 2019

Gail Jenkins 1 Great Oak Street Llanidloes Powys SY18 6EQ

RE:Upper Bryn Farm Proposed 32,000 Poultry Unit

Dear Gail,

Please find below the reasons for our objections to this proposal.

1. Far away from the main farm buildings in a naturally unspoilt area and a second metal poultry unit would spoil this. This is contrary to Local Development Plan Policy E6-Farm Diversification

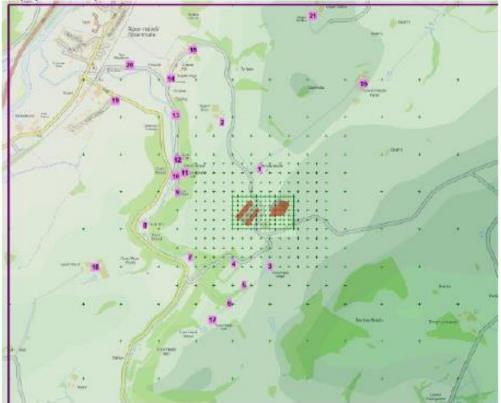
3. The construction of new, or conversions of existing buildings, that form part of the proposal lie within or immediately adjacent to the existing farm building complex.

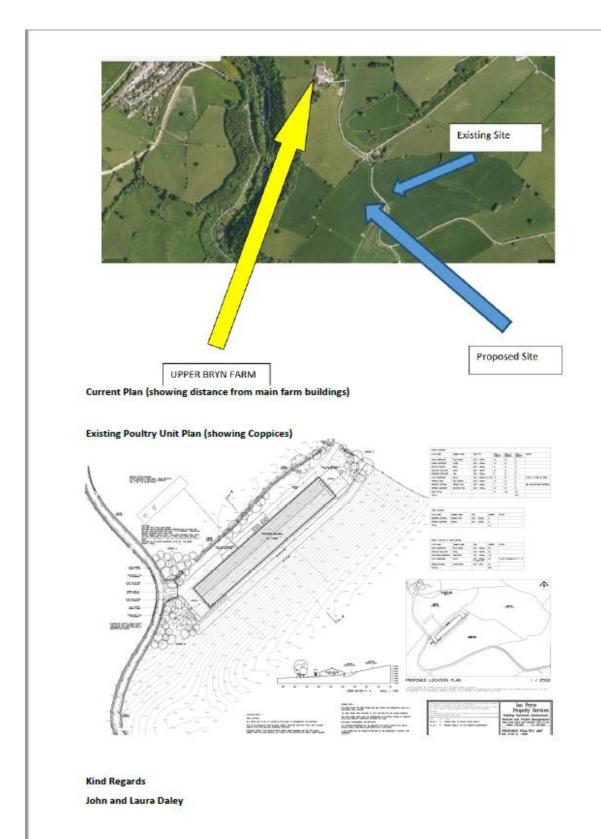
- The new proposal would cause the narrow windy road to run through the middle of two large buildings whereas before it was pasture in open countryside with unspoilt views (and no man made structures).
- This single-track road is the main access road for properties in Cefn-y-Coed and properties around FronFraith Hall and would be an additional burden for highway safety as population/car numbers are steadily on the increase.
- 4. The road is also used by tourists who stay locally and at nearby Fronfraith Hall (and elsewhere) located aproximately 500m away; this would not have a positive impact on tourism (one of countys main employment sectors)
- 5. There should be some conditions made whereby should the venture prove uneconomic the land is restored. The number of poultry developments in Wales will, at some point soon, reach the point where the egg supply will outstrip demand.
- 6. The height of the feed bins was not specified
- 7. There is no tree planting scheme to protect the loss of visual amenity (and possibly localise the smells). The recent (2017/18) existing development does not appear to have been completed as there is currently little evidence of the proposed planting scheme (Coppice A, B, C, etc on the orginal plans). The planting should be completed first.

See https://pa.powys.gov.uk/online-

applications/files/7A304773A6607B7F1940D8ABF08F2535/pdf/P 2017 1264--12208.pdf

8. The existing poultry unit does occasionally give off offensive smells and another (closer) unit would be more noticeable and more frequent. The odour analysis in the planning application is based on theoretical and unpredicable computer modelling and meteorogical data (see 4.1 Meteorological Data (<u>https://www.rogerparry.net/images/user/Upper Bryn Planning Justification Statement.pdf</u>). Fonfraith Hall was marked "theorectically" as receptor 17 on Figue 6 (copied below).





Brynhaud Cefnycoed Llandyssil Montgomery SY156LR.

Dear Sir/madam,

I wish to object to the proposed chicken sted at the Byn Abernule on the following grounds:-They call this new project an "extension" to the existing sted, whereas in reality there are no links to the existing shed at all. They've ignored some of the rules and conditions of the existing shed and continue to be untidy and giving no respect to other road used at all. The level crossing continues to be a serious danger with their own bractor involved in a collision with the barrier and the driver being arrested and repairs done to the crossing. Swely train passenger safety should come before greed. The visual impact of another sted would be severe and the strong the villages are building. feelings of

Yours forthfully P. R. Momes

# 11.0 Planning Policy

# Planning Policy Wales (Edition 8, January 2016) – Chapter 7 Economic Development

7.1.1 For planning purposes the Welsh Government defines economic development as development of land and buildings for activities that generate wealth, jobs and incomes. Economic land uses include the traditional employment land uses (offices, research and development, industry and warehousing), as well as uses such as retail, tourism, and public services. The construction and energy sectors are also important to the economy and are sensitive to planning policies.

7.1.2 It is essential that the planning system considers, and makes provision for, the needs of the entire economy and not just those uses defined under parts B1-B8 of the Town and Country Planning Use Classes Order. Particular policies on other economic sectors are also found elsewhere in Planning Policy Wales: in relation to Retail and Town Centres (Chapter 10); Tourism, Sport and Recreation (Chapter 11) and Infrastructure and Services (Chapter 12).

7.1.3 The planning system should support economic and employment growth alongside social and environmental considerations within the context of sustainable development. To this end, the planning system, including planning policies, should aim to ensure that the growth of output and employment in Wales as a whole is not constrained by a shortage of land for economic uses. Local planning authorities should aim to facilitate the provision of sufficient land required by the market, except where there are good reasons to the contrary. In addition, wherever possible local planning authorities should seek to guide and control economic development to facilitate regeneration and promote social and environmental sustainability. In so doing, they should aim to:

- co-ordinate development with infrastructure provision;
- support national, regional, and local economic policies and strategies;

align jobs and services with housing, wherever possible, so as to reduce the need for travel, especially by car;

- promote the re-use of previously developed, vacant and underused land; and
- deliver physical regeneration and employment opportunities to disadvantaged communities.

7.3.3 Local planning authorities should adopt a positive approach to development associated with farm diversification in rural areas, irrespective of whether farms are served by public transport. While initial consideration should be given to adapting existing farm buildings9, the provision of a sensitively designed new building on a working farm within existing farm complexes may be appropriate where a conversion opportunity does not exist.

Local planning authorities should adopt a constructive approach towards agricultural development proposals, especially those which are designed to meet the needs of changing farming practices or are necessary to achieve compliance with new environmental, hygiene or welfare legislation. In

addition they should adopt a positive approach to the conversion of rural buildings for business reuse.

7.4 Technical Advice Note (TAN) 6 – Planning for Sustainable Rural Communities (July 2010) supports and encourages the need for economic development. TAN 6 in its entirety recognises the importance of development.

TAN 6 confirms that "the planning system has a key role to play in supporting the delivery of sustainable rural communities."

'Strong rural economies are essential to support sustainable and vibrant rural communities. A strong rural economy can also help to promote social inclusion and provide the financial resources necessary to support local services and maintain attractive and diverse natural environments and landscapes"

TAN 6 states that "when considering planning applications for farm diversification projects, planning authorities should consider the nature and scale of activity taking a proportionate approach to the availability of public transport and the need for improvements to the local highway network."

Section 6 of TAN 6 discusses Sustainable Agriculture. "The Welsh Governments objective is a sustainable and profitable future for farming families and businesses through the production and processing of farm products while safeguarding the environment, animal health and welfare, adapting to climate change and mitigating its impacts, while contributing to the vitality and prosperity of our rural communities.

The planning system can play an important part in supporting sustainability of agriculture."

TAN 6 recognises that "farms vary considerably in size, type and farm business and layout. The loss of part of a holding can have important implications from the remainder. The effect of severance and fragmentation upon the farm and its structure may be relevant."

7.5 Technical Advice Note (TAN) 23 – Economic Development (February 2014) stipulates that "Sustainable development is essential to building strong rural economies and vibrant communities." "When businesses expand or modernise, they may need to do so in situ; it may be highly inefficient or impracticable for them to relocate to a subsequently preferable site.

7.6 Development Plans and the economy should:

• include policies encouraging farm diversification and new rural development opportunities;

# Powys Local Development Plan 2011 - 2026

The Plan does include various references to agriculture and the agricultural economy of Powys. The section quoted at SP6 and its RJ in para 3.3.35 links to national policy, whilst para 4.1.5 confirms that no specific policy is included for agricultural development. Agricultural buildings will be just one type of new development and will be assessed against all the relevant plan policies (design and resources, landscape, environment, etc.) alongside national planning policy guidance.

## **12.0** Conclusion

- The farm business Prepared for WL Hamer who are proposing to erect a poultry unit on farm to provide accommodation for a further 32,000 Free Range Birds on farm which is a considerable investment by the farming business. It has been researched thoroughly and the business is adamant that the extended enterprise will be successful. The development proposed is additional farm diversification championed by the Government.
- The application site lies as close as possible to the existing farmstead at Upper Bryn, and next to the existing poultry unit, having regard to the landscape constraints and ranging area required. Although the development is within the open countryside it is adjacent to the farmstead as required by the Welsh Government and Powys County Council thus reducing the impact of the development on the landscape. The colour of the building proposed is slate grey, again allowing the unit to be assimilated into its surrounding landscape as is the same colour as the existing poultry unit on farm.
- The unit shall have no detrimental impact on surrounding residential properties as a result of the intervening topography and landscape features together with the distance of the property from the Upper Bryn Poultry Unit.
- The development will not have a detrimental impact on local habitats and the biodiversity of the site.
- The proposals will result in minimal increases to highway movements related to the farming unit.
- The proposal is in line with the policies of the Welsh Government contained within Planning Policy Wales and the policies of the Powys County Council Local Development Plan, therefore, it is respectfully requested that full planning consent is given to the development.