Betts

BASELINE ECOLOGICAL SITE AUDIT[1]

OAKFIELD FARM, KINGSLAND, HEREFORDSHIRE
for
VAUGHAN FARMS LTD

August 2013
6245/4423/1/HAUD

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N.B. Information on legally protected, rare or vulnerable species may appear in ecological reports. In such cases it is recommended that appropriate caution be used when circulating copies.

[1] Incorporates "Phase 1" habitat plan, walkover survey for protected and notable species and habitats, and appraisal in context of biodiversity and planning policies.
NB. **THIS REPORT FORMAT IS DESIGNED TO COMPLY WITH STATUTORY AUTHORITY (*e.g.* Natural England) RELEVANT STANDING ADVICE. FURTHER STUDIES MAY BE REQUIRED WHERE THERE IS EVIDENCE OF PROTECTED SPECIES OR IF OTHER NOTABLE ECOLOGICAL FACTORS ARE FOUND.**

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PROJECT DATA – BASELINE ECOLOGICAL SITE AUDIT	
Surveyor	Lizzie Bryce
Date of site risk assessment	31/07/2013
Site address	Oakfield Farm, Kingsland, Herefordshire, HR6 9QU
Project proposed	Erection of poultry units.
Boundary as specified by client	YES
Site area (ha) & central OS Grid Ref.	Site area: approximately 1.1ha at Ordnance Survey Grid Reference: SO45446098.
Survey date	31/07/2013

REPORT CONTROL General Report Information	
Date report issued	28/08/2013
Contract manager & Ecologist	[redacted] Lizzie Bryce - Science & Operations Manager

Report Version Control

Version	Date	Author	Description
1.0	14/08/2013	Lizzie Bryce	Document created
2.0	28/08/2013	Lizzie Bryce	Document completed

REQUIRED FURTHER WORK (PROTECTED SPECIES & HABITATS)	
Is further work needed to eliminate doubt regarding presence of notable species or habitats, or for any regulatory compliance?	YES

Work required if "yes":	Reason
Undertake site clearance outside the bird nesting season (usually taken as March to mid-August inclusive in this part of Britain). If this is unavoidable, pre-clearance inspection by a suitably experienced ornithologist will be required to identify whether any nests are present, and ensure appropriate action is taken.	To comply with current legislation and best practice.
Conduct a pre-clearance search of all areas of the site using suitably qualified ecological scientists under a Betts Method Statement or one formally pre-agreed by us immediately prior to site stripping to move any vulnerable taxa to safety or allow other necessary precautions to be taken prior to the commencement of development activity.	To avoid the risk of infringement of regulations,

REQUIRED FURTHER WORK FOR REGULATORY & GOOD PRACTICE COMPLIANCE	
Is further work recommended to observe ecological best practice and/or planning policy as recognised by the various statutory authorities at local, regional, national or European levels as may be applicable (enter the specific policies' references if required here)?	YES

Work required if "yes":	Reason
Formally instruct contractors and site personnel on agreed policies, recommendations and requirements to maintain environmental quality and minimise impacts during construction, generally avoiding unnecessary disturbance and pollution. If there are any steep-sided excavations created during construction, please ensure they are covered/filled/provided with ramps to prevent any mammals becoming trapped.	For reasons of planning and environmental policy compliance and best practice.
In compliance with National Planning Policy Framework paragraph 125, avoid unnecessary negative impacts of new lighting at night on wildlife. Minimise the hours when lighting is used, avoid "spillage" by using directional down-lighting, reduce brightness of necessary illumination and keep light from shining on potential bat roost entries, mammal holes, *etc.*	For reasons of planning and environmental policy compliance and best practice.
In line with best practice and compliance with government policy on biodiversity protection and enhancement, generally retain habitats and features of manifest ecological interest and wildlife value (seek further advice from us if uncertain) within the proposals. Create new wildlife habitats appropriate to the site's context, *e.g.* through the use of log piles, "wild" corners and native planting; install four bird nest boxes and four bat roost boxes, and incorporate these into the project's landscape scheme (we can provide specific recommendations for models and siting on request but they must be of good quality and durable).	For reasons of planning and environmental policy compliance and current best practice.

REQUIRED FURTHER WORK FOR REGULATORY & GOOD PRACTICE COMPLIANCE	
1) Surface water attenuation in the form of an attenuation pond which will create a new habitat resource and provide opportunities for wildlife if designed appropriately. 2) Supplementary planting of native shrub species at the field boundaries. This will benefit wildlife by strengthening and/or creating wildlife corridors and foraging resources. 3) The management of field margins for arable wild flowers to offset the loss of similar habitat in existing arable land.	For reasons of planning and environmental policy compliance and current best practice.

RESULTS – WHAT WE FOUND

Objectives

The objectives of this commission were to:

- Conduct a baseline "extended" ecological survey and appraisal of the above site and identify notable factors/features;
- prepare a Phase 1 Habitat Map with Target Notes to recognised standards;
- produce a summary of results;
- provide appropriate recommendations for protected species, biodiversity protection/ enhancement, *etc.*

Methods and Limitations

The site was surveyed using an extended Phase 1 habitat survey approach based on NCC (1990)[2] and the Institute of Environmental Assessment (1995)[3] in addition to *Guidelines for Preliminary Ecological Appraisal* of the Institute of Ecology and Environmental Management (2012)[4].

It should be noted that, whilst the investigation of the site was appropriately intensive within the intended framework of the commission, and we feel it is unlikely that significant matters have been overlooked, a single visit will inevitably miss species not apparent on the date of survey by reason of seasonality, mobility, habits or chance. The month of July is within the optimal survey period for the great majority of taxa of nature conservation interest in this part of the United Kingdom.

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[2] **Nature Conservancy Council (1990).** *Handbook for Phase 1 habitat survey – a technique for environmental audit.* Nature Conservancy Council, Peterborough, UK.

[3] **Institute of Environmental Assessment (1995).** *Guidelines for Baseline Ecological Assessment.* E & FN Spon, London, UK.

[4] **Institute of Ecology and Environmental Management (2012** Revised 2nd Edition). *Guidelines for Preliminary Ecological Appraisal.* IEEM, Winchester, UK.

Results Table

ITEM	OBSERVATIONS
Habitats & Vegetation (*NB.* Please be aware that several designated habitat types and many plants enjoy legal protection in Britain.)	
General description	Oakland Farm is located in a rural area of central Herefordshire, characterised by undulating lowland topography dominated by arable agricultural management practices. Habitat within the study area comprises intensively managed agricultural land, used to grow potatoes.
Target Note (TN) 1 (for location of TNs please see plan below)	Arable field used to grow potatoes (at the time of survey).
TN 2	Field boundary (outside development footprint) consisting of a species-poor hedgerow (beech, hawthorn and holly) with trees (five mature pedunculate oak) with a field margin comprising common grass species (perennial rye-grass, false oat-grass) and a scattering of previous crop escapees such as oat and rape. Forbs present include cleavers, nipplewort, red dead-nettle, hogweed, common nettle and greater burdock. A line of Leyland cypress trees is also present at the south-western corner.
TN3	Track (bare ground) running through arable field consisting of compacted earth.
Statutory designations (on/near)	The River Lugg and River Lugg Meanders Special Sites of Scientific Interest (SSSIs) run approximately 500m north-east of the site, beyond an area of broadleaved woodland at the far boundary of the arable field. Measures to protect the Lugg and its meanders from potential nitrogen run-off and nutrification are incorporated in to the design proposals. No negative impact on these SSSIs is predicted.
Non-statutory designations (on/near)	Five non-statutorily designated sites lie within a 2km search radius of the site. These are Choltrey Local Geological Site, Field North of Harbour Farm Special Wildlife Site (SWS), Pinsley Brook SWS, Eveton Common SWS and River Lugg SWS. Mitigation measures as above.
Notable hedgerows, woodland or scrub	None within development footprint. The species-poor hedgerow along the boundary of the arable field should be retained and would benefit from additional planting of native species to enhance this habitat for wildlife.
Ecologically notable trees (*e.g.* veteran, wildlife significant)[5]	None within development footprint. Approximately five mature pedunculate oak are present along the field boundary to the south but these are outside the development area and will be unaffected by the proposals.

[5] Please note that we do not check TPO status as this is a landscape/amenity planning classification.

ITEM	OBSERVATIONS
Ponds/water courses	The River Lugg runs within 500m of the development area beyond an area of broadleaved woodland at the north-eastern boundary of the arable field (outside development area). Methods to prevent nitrogen-/nutrient-rich run-off and waste to protect the river from any adverse impacts associated with the erection of poultry units on the site are part of the design proposals (including attenuation pond and surface water discharge points which are directed away from the river). As such, and providing they are strictly monitored and maintained, no adverse impact on the river is predicted as a result of the proposals.
Notable communities	None observed on site.
Notable vascular plants	No vascular plant species of particular note were identified.
Notable bryophytes/algae	None identified.
Notable lichens	None identified.
Notable fungi	None identified – out of season but notable spp unlikely.
Other notable habitats/vegetation	None identified.
Features that should be retained	None within development footprint but field boundaries should be retained and would benefit from supplementary planting of native shrub species.
Mammals (*NB.* Several species and their habitats have very strict protection in British/European law.)	
Badger	No field evidence suggesting the presence of badgers was found.
Otter	The development site lacks features with potential for otter, although we believe otter are present along the River Lugg.
Other mustelids	No field evidence to suggest the presence of any other mustelids was found.
Bats	The site lacks buildings or trees with potential for roosting bats.
Water vole	The site lacks features with potential for water vole.
Common or hazel dormouse	The site lacks features with potential for dormice.
Deer	No field evidence to suggest the presence of deer was found.
Hedgehog	No field evidence to suggest the presence of hedgehogs was found.

ITEM	OBSERVATIONS
Shrews	Common and widespread species of shrew would be expected to occur at the fringes of the site.
Others	Rabbits likely to be present, particularly at the edges of the site.
Birds (*NB.* With the exception of eleven derogated pest or very common species, the Wildlife and Countryside Act (1981 and amendments) gives protection to all wild birds in Britain from killing, injuring or taking as well as taking, damaging or destroying nests in use or being built, and taking or destroying eggs. Many species are also protected by European and international statutes. [6])	
Red list	None identified.
Amber list	None identified.
Active nests	None identified.
Other	Carrion crow and wood pigeon observed flying overhead during survey.
Herpetofauna (*NB.* The grass snake, slow-worm, viviparous (common) lizard and adder (viper) are all protected from intentional killing and injury under Schedule 5, Section 9(1), of the Wildlife and Countryside Act as amended/reinforced by the CROW Act 2000. They are also protected under Schedule 5, Section 9(5) which prohibits selling, offering for sale, possessing or transporting for the purpose of sale, or advertising for sale, any live or dead animal, or any part of, or anything derived from the species. Other species and their habitats have stricter protection at national and European levels.)	
Adder	The presence of adders within the site is considered unlikely given the intensive nature of management within the plot and lack of suitable habitat.
Grass snake	The presence of grass snakes is considered unlikely based on the intensive nature of agricultural management within the site and lack of suitable habitat. No records of grass snake from within a 2km radius of the site.
Slow-worm	The presence of slow-worm is considered unlikely based on the intensive nature of agricultural management within the site and lack of suitable habitat. No records of slow-worm from within a 2km radius of the site.
Common lizard	The presence of common lizard is considered unlikely based on the intensive nature of agricultural management within the site and lack of suitable habitat. No records of common lizard from within a 2km radius of the site.
Rarer reptiles	No potential identified - not found in this area.

[6] Please also see www.rspb.org.uk/wildlife/birdguide/status_explained.aspx and www.bto.org/sites/default/files/u38/downloads/home-news/2011-11/SUKB%202011%20final.pdf for red and amber lists *etc.*, and explanations.

ITEM	OBSERVATIONS
Great crested newt	No potential breeding ponds were identified within 500m of the site. Given the intensive nature of agricultural management within the site and lack of cover and distance from potential breeding ponds, the likelihood of great crested newts occurring is considered negligible. No records of great crested newt from within a 2km search radius.
Natterjack toad	No potential identified - not found in this area.
Other amphibia	Widely occurring and far-ranging species including common frog and common toad would be expected at least to pass through the site on occasion.
Fish (*NB.* Various levels of legal protection.)	
Significant fishery	No open water present on site.
Bullhead	No open water present on site.
Shad	No open water present on site.
Lampreys	No open water present on site.
Salmonids	No open water present on site.
Other notable fish	No open water present on site.
Macro-invertebrates (*NB.* Several species enjoy legal protection.)	
Notable assemblage (terrestrial)	None identified.
Notable assemblage (aquatic)	None identified.
Crayfish	No open water present on site..
Roman snail	No potential habitat identified.
Lesser silver water-beetle	No open water present on site.
Stag beetle	No potential habitat identified.
Mining bees	No potential habitat identified.
Other notable spp or groups	None identified.

ITEM	OBSERVATIONS
Notable invertebrate habitat	None identified.
"Invasive" species (There are an increasing number of these being listed by authorities, some subject to regulatory control.)	
Japanese knotweed (or related *Fallopia* spp.)	No Japanese knotweed or any other invasive species was identified during the site visit.
Weeds Act natives (common ragwort, creeping and spear thistles, curled and broad-leaved docks)	Occasional plants of creeping thistle, spear thistle and curled dock were noted during surveys but none of the plants were found in abundance.
Other exotics that may cause problems such as *Rhododendron ponticum, Buddleia davidii.*	No potential problematic exotic plant species were identified during the site visit.
Invasive animals (signal crayfish, killer shrimp, oak processionary moth, harlequin ladybird, zebra mussel, grey squirrel *etc.*)	No invasive species were identified during the survey.
Phytophthora ramorum and other serious plant diseases/pathogens (ash dieback, sudden oak death, *etc.*)	No plant pathogens were encountered.

ITEM	OBSERVATIONS
Policy[7]	
Are there any known conflicts with local planning biodiversity policy (if so, please describe)?	Policy NC6 of the Herefordshire Unitary Development Plan states that development should have regard to species listed in the Herefordshire and UK Biodiversity Action Plans (now superseded by Section 41 species of principal importance in England under the NERC Act 2006). No species that fall under this policy have been identified or recorded on the application site. Oakland Farm is an important local enterprise and the socio-economic benefits of the proposals have not been considered here. However, the proposals also include the creation of a new freshwater habitat (attenuation pond). The fringes of the site should also be managed for arable wild flowers. These measures will increase habitat potential for birds and offset potential impact to other species that may be present within the site. NC7 states that *"Where development is permitted, the use of conditions and/or planning obligations will be considered in order to provide appropriate mitigation and compensatory measures to avoid, minimise or offset the loss of or damage to any biodiversity feature covered by policies NC2 to NC6. Such measures will be at least proportionate to the scale of the loss or impact".* Suggested wording for Conditions are recommended to include: - Planting of native shrub species to create or enhance hedgerows at the perimeter of the site. - Management of field margins to encourage arable wild flowers.
Are there any known conflicts with national planning biodiversity policy (if so, please describe)?	The National Planning Policy Framework 2012, largely defining how the UK plans to achieve "sustainable development", sets out the concept of minimising impacts on biodiversity and where possible, ensuring net gain. Restoration of field boundaries by planting of native hedgerow species in addition to the creation of a wetland and wildflower habitats is likely to create a net gain for biodiversity within an existing intensively managed plot.
Are there any known conflicts with European or international biodiversity policy (if so, please describe)?	None identified.

[7] It is important that projects incorporate relevant elements of Green Infrastructure Planning (please see www.naturalengland.org.uk/ourwork/planningdevelopment/greeninfrastructure/default.aspx)
"Green Infrastructure (GI) is a strategically planned and delivered network of high quality green spaces and other environmental features. It should be designed and managed as a multifunctional resource capable of delivering a wide range of environmental and quality of life benefits for local communities. Green Infrastructure includes parks, open spaces, playing fields, woodlands, allotments and private gardens."

Geological Conservation

GEOLOGICAL CONSERVATION (Geodiversity is a material planning consideration)	YES/NO	ACTION REQUIRED IF "YES"
Are there any features of geological importance on the development site?	NO	N/A
Are there any features of geological importance adjacent to the development site or that might be affected by the development (during or post construction)?	NO	N/A

PUBLIC RECORDS SEARCH (SUMMARY)		
Source	**Data/Response**	***Betts* comment**
Herefordshire Biological Records Centre	Bats	Fifty-four records of at least seven species of bat (common pipistrelle, soprano pipistrelle, brown long-eared bat, lesser horseshoe, Natterer's bat, noctule, *Myotis* sp. and unidentified species) from within the 2km search radius of the site. No records relate directly to the site (not suitable habitat on site).
	Badger	Three records of badger from within the 2km search radius of the site. No records relate directly to the site (and no signs of badger noted during survey).
	Polecat	One record of polecat from within the 2km search radius of the site. Record does not relate directly to the site.
	Yellowhammer	Four records of yellowhammer from within the 2km search radius of the site. None noted on site but enhancement of hedgerows by planting of native species may encourage this Red Listed bird on to the site.
	Statutory designations	River Lugg SSSI and River Lugg Meanders SSSI lie within a 2km search radius of the site. The Lugg meanders past the site beyond the small broadleaved woodland at the eastern boundary of the arable field within which the development footprint lies.
	Non-statutory designations	Five sites from within the 2km search radius: Choltrey Local Geological Site, Field North of Harbour Farm SWS, Pinsley Brook SWS, Eveton Common SWS, River Lugg SWS.

CONCLUSION

The site visit to Oakland Farm revealed an intensively managed agricultural plot of very limited biodiversity interest. At the time of the visit, the majority of the study area comprised a potato crop with disturbed ground or compacted earth running throughout.

Ecological interest does not form a significant constraint to the erection of poultry units within the site in our view. The proximity of the River Lugg SSSI (less than 500m from proposed development footprint) must be taken into consideration but with careful design, incorporating permanent measures to protect the Lugg and its meanders and prevent surface run-off and nutrification, no adverse impact is predicted.

The requirement for surface water attenuation in the form of an attenuation pond provides an opportunity for wildlife if designed appropriately. In addition, supplementary planting of native shrub species at the boundaries has the potential to benefit wildlife by strengthening or creating wildlife corridors. Opportunity exists to manage boundaries of the site as arable margins rather than as amenity grassland or a wild flower meadow.

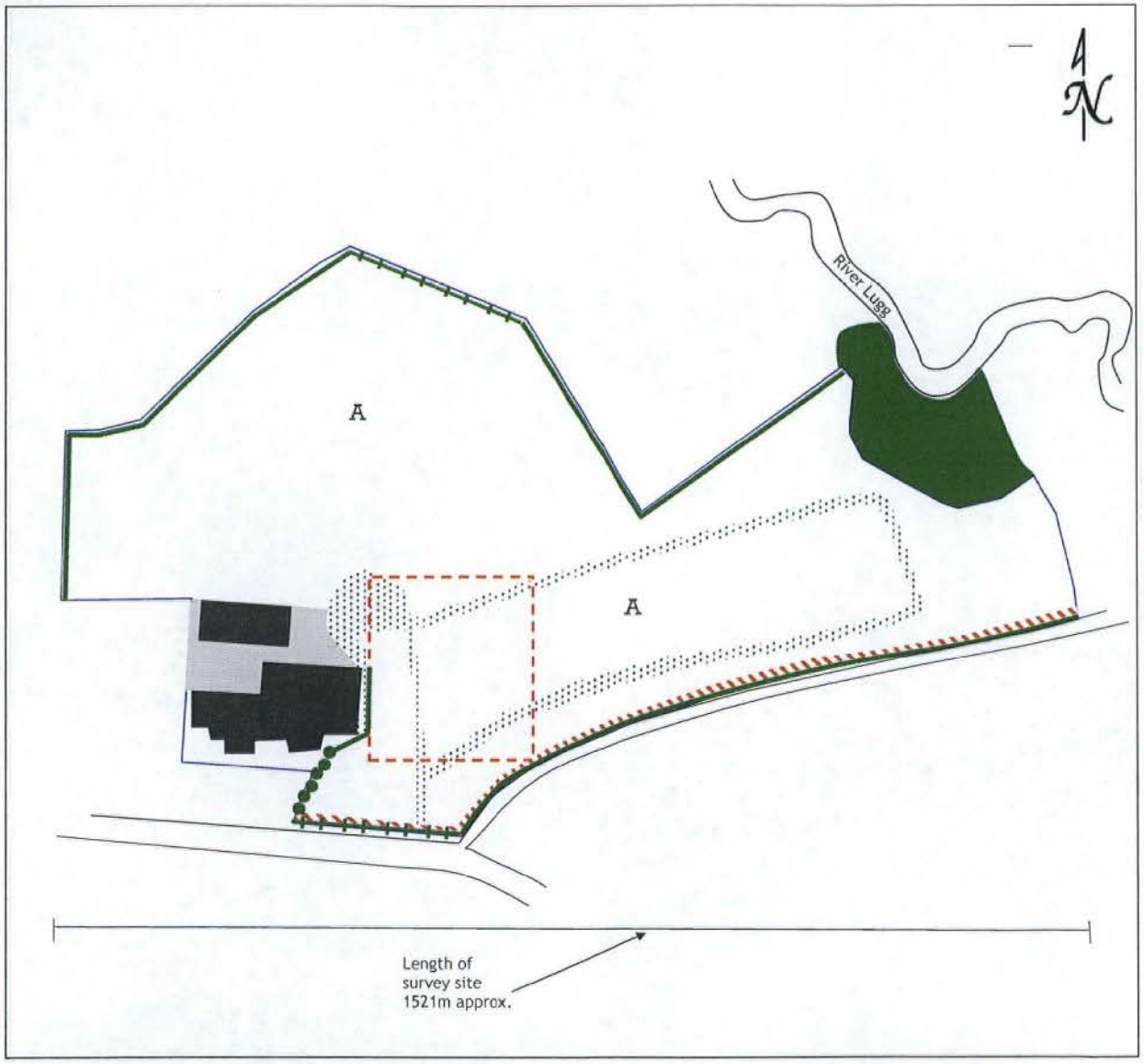
Providing the recommendations noted herein are fully implemented there are no obvious ecological counter indications to the proposed project at this stage. Indeed, the recommended ecological protection and enhancements will deliver planning and biodiversity gains.

Note

Please note that there is complex and strict legislation protecting many species and habitats. For European Protected Species (including bats, great crested newt, dormouse, otter, *etc.*) there is no longer a clear defence against harm being caused as an incidental result of an otherwise lawful operation. Full details are available on the web sites of DEFRA and the various statutory authorities, some of which now have direct powers of enforcement. If you are in any doubt about the status of species or habitats on your site, please be sure to contact us before undertaking any site work. You should also make sure that you are aware of, and have allowed for, all national and local planning policies relating to wildlife and nature conservation before proceeding.

This baseline audit may not be sufficient on its own for planning application purposes where notable habitats/species are present or potentially present, especially European Protected Species (EPS) (see note at end).

Site plan



Key:
- Survey boundary
- Broad-leaved semi-natural woodland A1.1.1
- Coniferous tree A3.2
- Tall ruderal C3.1
- A — Arable J1.1
- Species-poor hedge and trees J2.3.2
- Hedge (intact, species-poor) J2.1.2
- Bare ground J4
- Hard standing J5
- 1 — Target notes

Location of site

Client:	Ian Pick Associates Ltd.
Site:	Oakfields Farm, Kingsland, Herefordshire HR6 9QU
Title:	Baseline Ecological Site Audit
Ref:	6245
Date:	August 2013

Please note: this plan is intended only to indicate the approximate location of features and should therefore, not be treated as an accurate scale plan.

PHOTOGRAPHS
(All taken on 31/07/2013)

Plate 1: Bare ground (track through crop) and potato crop. River Lugg is beyond woodland on left of picture (TN3 & 1).

Plate 2: Potato crop (TN1) and agricultural buildings. The proposed poultry units will be built close to existing farm buildings.

Plate 3: Species-poor hedgerow with trees (oak) along southern boundary (TN2).

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IMPORTANT

Please be aware that, because the natural environment is dynamic, ecological reports generally have a limited period of currency. Many statutory authorities now regard one year as the maximum time that should elapse before a report will need to be updated: occasionally it may be longer but it may also be less. Where a European Protected Species licence is to be applied for once planning permission has been granted, a walk-over of the site should be carried out **within three months** of an application being submitted to check that the habitats have not changed significantly since the survey was carried out.

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Elizabeth Bryce - BSc (Hons), MSc DIC, ABiol, GICEEM - Science & Operations Manager.
Lizzie has a 2:1 science degree with honours in zoology from Southampton University (evolution, behavioural ecology, genetics, quantitative biological methods, biodiversity & conservation, and experimental & field biology). She also holds a masters degree with Merit in Advanced Methods in Taxonomy & Biodiversity from Imperial College, London, based at the Natural History Museum. Lizzie is a specialist in marine benthic polychaete worms but her general ecological knowledge and experience extends to field survey, bat, badger and newt studies, report writing and presentation, EIA and consultancy. Complementing her ecological field and laboratory work, Lizzie also has a background in business, the media (working for the BBC), presentations and administration.

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Please note that this report is a baseline ecological site audit of factors and features that may be significant for regulatory compliance and biodiversity policies relating to change of use or other disturbance. Such reports may not, on their own, contain sufficient information for a planning application and may require further more detailed study to assure compliance.

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United Nations Decade on Biodiversity

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