

BASELINE ECOLOGICAL SITE AUDIT¹

CLASTON FARM, DORMINGTON, HEREFORDSHIRE for MR. DEREK THOMAS



RESULT INDICATOR OF THIS SURVEY

- RED. Do not proceed. Without major modification this project will have significant adverse ecological & biodiversity impacts. It will not be sustainable or compliant with current legislation and approved planning policy.
- AMBER. Caution. The proposals as conceived would have negative impacts and cannot achieve a "No Net Loss" outcome unless measures are taken to avoid, mitigate/restore or, as a last resort, compensate the ecological impacts. With such changes, the project is considered feasible, however. Please see main text and Conclusion.

GREEN.

On present information, the proposals are expected to have no or only minor adverse impacts on ecology & biodiversity, and some gains. In terms of ecology, the project can proceed providing all the recommendations are met, enforced and monitored.

APRIL 2016 S:6522/J000615/HAUD

Betts Ecology

Bank House Martley Worcester WR6 6PB United Kingdom
T +44 (0) 1886 888445 E nature@bettsecology.com www.bettsecology.com

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.

©BETTS/MR. DEREK THOMAS

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.



CONTENTS

PROJECT DATA — BASELINE ECOLOGICAL SITE AUDIT	1
REPORT CONTROL	1
GENERAL REPORT INFORMATION	
WORK NEEDED FOR COMPLIANCE AS REVEALED BY THE SURVEY	2
REQUIRED FURTHER WORK (PROTECTED SPECIES & HABITATS)	2
REQUIRED FURTHER WORK FOR REGULATORY & GOOD PRACTICE COMPLIANCE	3
OBJECTIVES	5
METHODS AND LIMITATIONS	5
GENERAL SITE DESCRIPTION	6
RESULTS TABLE	7
MAMMALS	9
BIRDS	10
HERPETOFAUNA	11
FISH	
MACRO-INVERTEBRATES	12
INVASIVE ALIEN SPECIES (IAS) AND PATHOGENS	
POLICY	13
PHOTOGRAPHS	
CAPABILITY AND OUALITY ASSURANCE	21



PROJECT DATA — BASELINE ECOLOGICAL SITE AUDIT		
Surveyor	Kevin McGee	
Date of site risk assessment	12 April 2016	
Site address	Claston Farm, Dormington, Herefordshire. HR1 4EA	
Project proposed	Construction of two poultry units.	
Boundary as specified by client	YES	
Site area (ha) & central OS Grid Ref.	1.2 ha. Ordnance Survey Grid Reference: SO 58541 40814	
Survey date	12 April 2016	

REPORT CONTROL General Report Information	
Ecologist	Kevin <i>M</i> cGee
Date report issued	15 April 2016
Contract manager	Natalie Loben

Report Version Control

Version	Date	Author	Description
1.0	15 April 2016	Kevin McGee	Document created
2.0	15 April 2016	Kevin McGee	Document completed

Whilst all due and reasonable care is taken in the preparation of reports, Betts accept no responsibility whatsoever for any consequences of the release of this report to third parties. Clients are reminded that all work carried out by Betts is subject to our Terms of Trading which may be viewed at any time on our web site at www.bettsecology.com or can be provided on request.



WORK NEEDED FOR COMPLIANCE AS REVEALED BY THE SURVEY

RESULT INDICATOR OF THIS SURVEY

GREEN.

On present information, the proposals are expected to have no or only minor adverse impacts on ecology & biodiversity, and some gains. In terms of ecology, the project can proceed providing all the recommendations are met, enforced and monitored.

Please note that, in determining the requirements listed below, Betts adopt an objective and independent view, taking account of current legislation and the official guidance published by, or used by, Local Planning Authorities and the Statutory Agencies whom they consult². The objective is always to inform the project's proponents within a framework of the published policies of European, national and local governments on ecology and biodiversity, as may be relevant to the circumstances of the case, but always proportionately and based in science.

REQUIRED FURTHER WORK (PROTECTED SPECIES & HABITATS)		
Is further work needed to eliminate doubt regarding pres habitats, or for any regulatory compliance?	Is further work needed to eliminate doubt regarding presence of notable species or habitats, or for any regulatory compliance?	
Work required if "yes":	<u>Reason</u>	
To avoid the risk of infringement of regulations, conduct a pre-clearance search of all areas of the site to be developed 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.	esite gical one To comply with legislation and good site practice. y or	
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. Skylarks were recorded during this survey and are it is possible they could nest within the development footprint. The skylark is now listed as a Bird of Conservation Concern 4 (BoCC 4) by the British		egislation.

_

² The regulatory context includes the Wildlife & Countryside Act, Habitats & Species Regulations, Habitats Directive, Birds Directive, Berne Convention, Bonn Convention, Countryside & Rights of Way Act, Natural Environment and Rural Communities Act, Convention on Biological Diversity (Rio de Janeiro, Nagoya/Aichi — UK Post-2010 Biodiversity Framework), British Standard 42020: 2013, Chartered Institute of Ecology & Environmental Management ecological impact assessment guidance, etc.



REQUIRED FURTHER WORK (PROTECTED SPECIES & HABITATS)		
Trust for Ornithology due to a recent population decline.		
If possible, use native planting (preferably of local origin) in all landscaping. Where exotic species are planted, always avoid invasive species and choose those with wildlife value such as for nectar or shelter. (A selection of species is available from us.) It is understood that a section of species-poor hedgerow will be lost but replaced nearby. This will provide an opportunity to create a new species-rich hedgerow using a greater variety of locally-sourced native species.	For reasons of NPPF and environmental policy compliance and current best practice. To help assure No Net Loss of Biodiversity policy is upheld.	

REQUIRED FURTHER WORK FOR REGULATORY	& GOOD PRACTICE COMP	LIANCE
Is further work recommended to observe ecological best p policy as recognised by the various statutory authorities at European levels as may be applicable (enter the specific p required here)?	local, regional, national or	Yes
Work required if "yes":	<u>Reason</u>	
Embody Green Infrastructure protocols in landscaping and ensure ecological linkage out from and into the site. To follow government policy, ensure that the "carbon footprint" of all aspects of the project and its future operation is compliant with current best practice. This may include taking appropriate steps to avoid or reduce the use of fossil fuels, employing scientifically sound carbon offset/CO ₂ sequestration and instating renewable energy technologies. Ensure the measures agreed are quantified, independently verified and monitored.	For reasons of planning an environmental policy compourrent best practice.	
Although it is understood that one section of species- poor hedgerow will be lost retain mature trees and established native hedgerows elsewhere on site, and at the periphery, by designing around them. There is a particularly fine species-rich hedgerow forming the eastern boundary of the field to the west of the development site (see Target Note 3). This should be retained and all works kept clear of the root zones. Protect trees in line with BS 5837 and do not remove ivy, mistletoe, standing dead wood, snags or rot unless there is a clear and material safety risk or presence of a serious pathogen. (Ask for advice from a qualified silvicultural ecologist if in doubt.) 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 (seeking further advice from us if uncertain) within the development proposals. Create new wildlife habitats		reservation reasons of al policy



REQUIRED FURTHER WORK FOR REGULATORY	& GOOD PRACTICE COMPLIANCE
appropriate to the site's context, e.g. through the use of log piles, "Wild" corners and native planting; install four bird, four bat and four invertebrate boxes including "bee bricks", of mixed designs 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.) Bat and bird boxes must be inspected annually and replaced when needed (usually after ten years).	
In compliance with National Planning Policy Framework paragraph 125, avoid unnecessary negative impacts of new lighting at night, e.g. on bats, invertebrates, plants, astronomy. Minimise the hours when lighting is used, avoid "spillage" by using directional downlighting, reduce brightness of necessary illumination and keep light from shining on bat roost entries, mammal holes, etc.	For reasons of planning and environmental policy compliance and current best practice.
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.	Regulatory requirements, planning policy compliance and best practice.
Design and incorporate Sustainable Drainage Systems (SuDS) in agreement with any requirement from the Environment Agency or other relevant authority. It is particularly important to avoid any contamination of local watercourses at any time (including floods). This survey report has been awarded a 'green light' indication; but this is on the understanding that it is crucial the design of the drainage system, at this sensitive location within a high-risk flood area close to the River Frome, is sufficiently robust to prevent pollution.	To uphold sustainable drainage policy.



RESULTS – WHAT WE FOUND

Objectives

The objectives of this commission were to:

- conduct a baseline "extended" ecological survey and appraisal of the site
 and identify notable factors/features (including signs of/potential for bats
 and great crested newts);
- 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 appropriate methods generally following NCC (1990)³ for Phase 1 habitat survey, with procedures appropriately selected from Institute of Environmental Assessment (1995)⁴ and Jermy *et al.* (1995)⁵ for species and any specialist habitat appraisal as required, and/or the current guidance on survey methods and Ecological Impact Assessment from the Institute of Ecology and Environmental Management (*e.g.* IEEM 2012, IEEM 2007 and updates⁶) with further reference to British Standard 42020⁷ as appropriate.

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 April is within the optimal survey period for many taxa of nature conservation interest in this part of the United Kingdom, and within the period acceptable for Phase 1 habitat mapping and baseline surveys of the kind commissioned provided the limitations are noted.

3

³ Nature Conservancy Council (1990). Handbook for Phase 1 habitat survey — a technique for environmental audit. Nature Conservancy Council, Peterborough, UK.

⁴ Institute of Environmental Assessment (1995). Guidelines for Baseline Ecological Assessment. E & FN Spon, London, UK.

⁵ Jermy, A.C., Long, D., Sands, M.J.S., Stork, N.E. and Winser, S. (Eds) (1995). *Biodiversity assessment: a guide to good practice*. Department of the Environment/HMSO, London, UK.

hstitute of Ecology and Environmental Management (2007). Guidelines for Ecological Impact Assessment in the United Kingdom. IEEM, Winchester, UK. Institute of Ecology and Environmental Management (2012 Revised 2nd Edition). Guidelines for Preliminary Ecological Appraisal. IEEM, Winchester, UK.

⁷ British Standards Institute (2013). British Standard 42020: 2013 Biodiversity. Code of practice for planning and development. British Standards Institute, London, UK.



It should always be recalled that wildlife surveys of the kind required for planning and development or similar project purposes are seldom granted sufficient time or resources to examine plants, invertebrates or fungi in great detail, yet these are the fundamental elements of ecosystems that provide the niches and habitats for larger fauna to exploit. In an ideal world, all surveys would include results of full sampling of vascular and non-vascular plants, micro- and macro-invertebrates and mycological status at individual, population and community levels. As that involves skills, time and expense well beyond what is available, we ask readers of our general survey reports to understand that we do consider the larger species we record in their wider ecosystem context and take into account the impacts of proposals at an ecosystem level when prescribing avoidance, mitigation, enhancement and/or compensation.

General site description

The proposed development is for the construction of two additional poultry units adjacent to two existing units. The proposed development site occupies a plot of agricultural land approximately 1.2 ha in size within a large field being farmed for wheat during this survey. Appropriate parts of the surrounding area were also surveyed bringing the total area covered for this report to approximately 6.0 ha.

The northern boundary of development site is approximately 75 metres to the south of the River Frome. All of this area lies within the River Frome floodplain and as a consequence there are several deep ditches throughout the surrounding landscape draining into the River Frome. Following a recent period of heavy rain all of the drainage ditches had high water levels during this survey and were flowing strongly towards the River Frome. Theses drainage ditches are dry at other times of the year. The site is in a low-lying sparsely-populated rural area of Herefordshire. The main A438 trunk road is accessed 0.2 km to the south of the farm and is one of the arterial roads into the city of Hereford approximately 8 km to the west. Much of the surrounding landscape is on high quality agricultural land and is intensively farmed for arable and livestock production; there are also commercial and traditional orchards, small villages and hamlets, pockets of semi-natural ancient woodland and common land.



The development site footprint occupies a crop of wheat, therefore all the vegetation recorded was found in the ditches, hedgerows and field edges around the site perimeters. Trees and woody shrubs recorded were bramble, ivy, hawthorn, blackthorn, dog-rose, apple, ash, elm, elder, alder, crack willow, goat willow and poplar sp. Plant species recorded were common nettle, broad-leaved dock, common mouse-ear, hairy bittercress, creeping thistle, spear thistle, lesser celandine, hogweed, red campion, white campion, lords-and-ladies, cleavers, hart's-tongue, broad-leaved willowherb, great willowherb, foxglove, smooth sow-thistle, dog's mercury, cow parsley, white dead-nettle, red dead-nettle, herb-Robert, lesser burdock, common knapweed, dandelion, creeping buttercup, meadow buttercup, common field-speedwell, white clover, red clover, teasel, wood avens, ragwort, greater plantain, ground ivy, wavy bittercress, cut-leaved crane's-bill, naturalised oil-seed rape, mistletoe, fool's watercress, hedge garlic, common vetch and black medick. The dominant grass species recorded within the vascular plant community were, cock's-foot, annual meadow grass, red fescue, Yorkshire-fog, common bent, and perennial rye-grass. Floating sweet-grass and reed canary-grass were present in the drainage channel to the north of the development site.

Results Table

ITEM	OBSERVATIONS	
Habitats & Vegetation (NB. Please be aware that several designated habitat types and many plants enjoy legal protection in Britain.)		
Please see general site de	scription above.	
Target Note (TN) 1 (for location of TNs please see plan below)	TN 1 is a small traditional apple orchard on the approach towards the developments site (see Plate 1). Traditional orchards are now under threat due to destruction and are considered to be priority conservation habitats. Consequently, they now have status as Priority BAP Habitats (Habitats with formally written Biodiversity Action Plans). It is understood that this orchard will remain unaffected by the proposed development.	



ITEM	OBSERVATIONS
TN 2	TN 2 is the attenuation pond constructed as part of the existing recently installed poultry units adjacent to the proposed development footprint (see Plate 2). The water levels were shallow during this survey and there were no signs of aquatic plants. However, the steep-sided banks were being gradually colonised by a wide variety of early successional native plant species. If this was allowed to continue an interesting water-side plant community will eventually develop here. It is understood that this pond will be enlarged as part of the proposed development. This will provide an ideal opportunity to allow the establishment of an ecologically valuable riparian habitat over time.
TN 3	TN 3 is a species-rich hedgerow alongside a seasonally-dry ditch that forms the eastern boundary of the field to the west of the development site (see Plate 3).
TN 4	TN 4 is the River Frome and its bankside vegetation to the north of the proposed development site (see Plate 4). The river flows northeast to south-west towards the River Lugg, which then enters the River Wye. All parts of the River Frome and its environs are of very high ecological importance and it is therefore vital that no pollution should be allowed to enter the watercourses that flow towards the Frome.
TN 5	TN 5 is a plantation woodland comprised mainly of poplar species (see Plate 5). However, this has been left to nature and further native tree and shrub species have become established within the wood. It may now be considered a semi-natural broad-leaved woodland. All parts of the wood and the wood edges have very ecological value, but it is understood that it will remain unaffected by the proposed development.
TN 6	TN 6 is a deep seasonally-dry drainage ditch following the southern boundary of the woodland described above (see Plate 5). This was full of water flowing west following heavy rain during this survey.
TN 7	TN 7 is a drainage ditch just to the north of the existing poultry units. It is bordered by a simple post & wire fence on one side, and a species poor hedgerow on the other (see Plate 6). The vegetation either side of this seasonal water course comprises mainly of great willowherb, broad-leaved dock, common nettle and cock's-foot. The ditch and marginal vegetation is considered to have limited ecological value, therefore culverting the ditch will have negligible ecological impact.
Statutory designations (on/near)	A public records search was not commissioned as part of this project. However, a search using magic.gov.uk revealed that there is one statutory designated site within a 2 km radius of the site. Perton Roadside Section and Quarry SSSI lies 1.3 km to the southeast. This SSSI is designated for its geological interest and will not be affected by the proposed development.
Non-statutory designations (on/near)	A public records search was not commissioned as part of this project. However, a search using magic.gov.uk revealed that there are no non-statutory designated sites within a 2 km radius of the site.



ITEM	OBSERVATIONS	
Notable hedgerows, woodland or scrub	The species-rich hedgerow at Target Note 3 has high ecological value. The broad-leaved semi-natural woodland at Target Note 5 also has high ecological value. All parts of the banks and margins of the River Frome at Target Note 4 have very high ecological value.	
Ecologically notable trees (e.g. veteran, wildlife significant) ⁸	All of the mature apple trees in the traditional orchard at Target Note 1 have high ecological value.	
Ponds/water courses	The site is surrounded by deep drainage ditches that eventually drain into the River Frome approximately 75 metres to the north of the proposed development site. All the drainage ditches are understood to be seasonally dry. All of these surrounding water courses were assessed for their suitability to support populations of great crested newts by Betts Ecology during March 2014 (Betts Ecology 6323/4651/2/SGCN). A great crested newt Habitat Suitability Index (HSI) was completed as part of the development proposals for the two poultry units now in position just to the north of the new development footprint. The HSI found that all watercourses around the site had very low potential to support GCN. "Five water bodies were considered for assessment: three were fast flowing (two drainage ditches and a stream). the other two, one slow flowing drainage ditch and one omamental pond, were assessed for suitability of habitat (HSI); both resulted as poor suitability for GCN. The development will have no proposed effects on great crested newts and their habitat in this managed arable field, as long as construction is properly contained within the site boundary. No further surveys required."	
Notable communities	All parts of the River Frome and its immediate riparian environs are notable wildlife habitats.	
Notable vascular plants	None observed on site.	
Notable bryophytes/algae	None observed on site.	
Notable lichens	None observed on site.	
Notable fungi	None observed on site.	
Other notable habitats/vegetation	None observed on site.	
Features that should be retained	The species-rich hedgerow at Target Note 3 should be retained, and all the root zones should be protected during site construction work.	
Mammals (NB. Several species and their h	Mammals (NB. Several species and their habitats have very strict protection in British/European law.)	
Badger	No field signs of badgers or setts on site, but could visit the site.	

 $^{^{8}}$ Please note that we do not check TPO status as this is a landscape/amenity planning classification.



ITEM	OBSERVATIONS	
Otter	None observed and no field signs on the footprint of the development site, but are likely to occur in all the surrounding water courses; especially the River Frome.	
Other mustelids	None observed on site, but could possibly occur.	
Bats	None observed and no field signs on site, but could possibly use holes and crevices in the larger and older trees in the woodland at Target Note 5, and in the older trees alongside the River Frome as places to roost or hibernate. Good foraging habitat exists along the species-rich hedgerows, the woodland edges and at all parts of the River Frome.	
Water vole	None observed and no field signs on site, but could possibly occur.	
Common or hazel dormouse	None observed and no field signs on site, but could possibly occur.	
Deer	None observed on site, but are likely to occur.	
Hedgehog	None observed on site, but could possibly occur.	
Shrews	None observed on site, but are likely to occur.	
Others	Foxes and grey squirrels are likely to use the site as well as brown rats/mice/voles and moles. Rabbits were observed.	
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. 9)		
Red list	Two skylarks were singing in flight overhead. A curlew was heard calling from fields to the north of the River Frome.	
Amber list	Two dunnocks were observed. A willow warbler was heard calling. A pair of reed buntings were observed at a probable nest-site at the species-rich hedgerow (TN 3).	
Active nests	A pair of reed buntings were highly likely to be nesting in the species-rich hedgerow at TN 3.	
Other	Other birds recorded during the survey were buzzard, mandarin (at the river), great tit, chiffchaff, blackcap, robin, wren, carrion crow, jackdaw, magpie, blackbird, wood pigeon, chaffinch and goldfinch.	

⁹ 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 <a href="https://example.com/exa



ITEM	OBSERVATIONS	
Comments on ornithology	Ideal opportunities exist in the species-rich hedgerow at TN 3 as nesting habitat for a wide range of species. Good habitat for a further variety of species is found in the woodland at TN 5. All parts of the River Frome at TN 4 are very important habitats for nesting birds. The woodland, hedgerows, river banks, and margins of all the water courses on-site also provide habitat for a wide range of invertebrates which are the food source that fledgling birds need to survive to adulthood. It is understood that the attenuation pond at TN 2 will be extended as part of the proposed development. This will provide another habitat type that will eventually attract a different range of nesting bird species if the pond margins are allowed to develop naturally and become colonised by native riparian plant. It is likely that the attenuation ponds will eventually become reed beds with goat willow, birch and alder growing around the margins.	
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	No suitable habitat present.	
Grass snake	None observed on site, but could possibly occur. Suitable refugia were overturned in a general search for reptiles and amphibians but no grass snakes were found.	
Slow-worm	None observed on site, but could possibly occur. Suitable refugia were overturned in a general search for reptiles and amphibians but no slow worms were found.	
Common lizard	No suitable habitat present.	
Rarer reptiles	No suitable habitat present and not found in this area.	
Great crested newt	None observed on-site but could possibly occur outside the breeding season. All of these surrounding seasonal water courses were assessed for their suitability to support populations of great crested newts by Betts Ecology during March 2014 (Betts Ecology 6323/4651/2/SGCN). A great crested newt Habitat Suitability Index (HSI) was completed as part of the development proposals for the two poultry units now in position just to the north of the new development footprint. The HSI found that all watercourses around the site had very low potential to support GCN. "Five water bodies were considered for assessment: three were fast flowing (two drainage ditches and a stream). the other two, one slow flowing drainage ditch and one ornamental pond, were assessed for suitability of habitat (HSI); both resulted as poor suitability for GCN. The development will have no proposed effects on great crested newts and their habitat in this managed arable field, as long as construction is properly contained within the site boundary. No further surveys required."	



ITEM	OBSERVATIONS	
Natterjack toad	No suitable habitat and not found here.	
Other amphibia	None observed on site, but common frogs and common toads are likely to occur in terrestrial phase. Suitable refugia were overturned in a general search for reptiles and amphibians but none were found.	
Fish (NB. Various levels of legal protection.)		
Significant fishery	All parts of the River Frome at Target Note 4 constitute a significant fishery	
Bullhead	Highly likely to occur in the River Frome.	
Shad	N/A. No suitable aquatic habitat present.	
Lampreys	Could possibly occur in the River Frome.	
Salmonids	Highly likely to occur in the River Frome.	
Other notable fish	Detailed survey work of the River Frome is beyond the scope and requirements of this survey.	
Macro-invertebrates (NB. Several species enjoy legal protection.)		
Notable assemblage (terrestrial)	None observed on site	
Notable assemblage (aquatic)	The River Frome is likely to contain a notable aquatic assemblage. However, detailed survey work of the River Frome is beyond the scope and requirements of this survey.	
Crayfish	Could possibly occur in the River Frome.	
Roman snail	No suitable habitat present.	
Lesser silver water- beetle	No suitable habitat and not found in this part of the UK.	
Stag beetle	No suitable habitat present.	
Mining bees	A wide variety of species are likely to nest in patches of bare dry ground and old beetle holes in dead wood throughout the site, especially in sheltered sunny places.	
Other notable spp or groups	None.	



ITEM	OBSERVATIONS		
Notable invertebrate habitat	All parts of the River Frome and its immediate riparian environs are highly likely to classified as notable invertebrate habitat. However, detailed survey work of the invertebrates here is beyond the scope and requirements of this survey. The muddy margins of the attenuation pond at Target Note 2 were found to contain populations of the ground beetle <i>Elaphrus cupreus</i> , and the shore bug <i>Saldula saltatoria</i> . Both species are strictly confined to open ground alongside water courses.		
Invasive Alien Species (IAS) and pathogens (There are an increasing number of these being listed by authorities. More and more are becoming subject to regulatory control within criminal law that carries significant sanctions.)			
IAS (plants) (Wildlife & Countryside Act Article14, Schedule 9.)	None observed on site.		
Weeds Act natives (common ragwort, creeping and spear thistles, curled and broad-leaved docks)	Common ragwort, broad-leaved dock, spear thistle and creeping thistle are present.		
Other exotic plants that may cause problems.	None observed on site.		
Invasive animals (signal crayfish, killer shrimp, oak processionary moth, harlequin ladybird, zebra mussel, grey squirrel, etc.)	Harlequin ladybirds were observed on site, and grey squirrels are likely to occur.		
Phytophthora ramorum and other serious plant diseases/pathogens (ash dieback, sudden oak death, etc.)	None observed on site.		
Policy ¹⁰	Policy ¹⁰		
Are there any known conflicts with local planning biodiversity policy (if so, please describe)?	None known.		
Are there any known conflicts with national planning biodiversity policy (if so, please describe)?	None known.		

¹⁰ It is important that projects incorporate relevant elements of Green Infrastructure Planning (please see www.naturalengland.org.uk/ourwork/planningdevelopment/greeninfrastructure/default.aspx) (footnote continued)



ITEM	OBSERVATIONS
Are there any known conflicts with European or international biodiversity policy (if so, please describe)?	None known.

CONCLUSION

This survey report has been awarded a "green light" indication; but this is on the understanding that it is crucial the design of the drainage system, at this sensitive location within a high-risk flood area close to the River Frome, is as robust as possible to prevent pollution. It is essential that pollution from the new poultry units is prevented from entering the surrounding water-courses; particularly so during seasonal flood events. The designs of the new units should include rigorous measures in order to meet the highest possible regulatory standards to prevent pollution during seasonal floods.

Extending the existing attenuation pond and allowing natural vegetation to colonise the pond margins will result in nett gains for biodiversity.

The species-rich hedgerow alongside the water course should be retained as recommended above. If any existing hedgerows and trees elsewhere are to be affected it will be important to undertake site clearance outside the bird nesting season (usually taken as March to mid-August in this part of Britain) or, if this is unavoidable, ensure there is a pre-works inspection by a suitably qualified ecologist

"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



to identify whether any nests are present and advise on appropriate action to be taken. It will also be important to undertake a pre-site clearance search for nesting skylarks within the development footprint currently occupied by a crop of wheat.

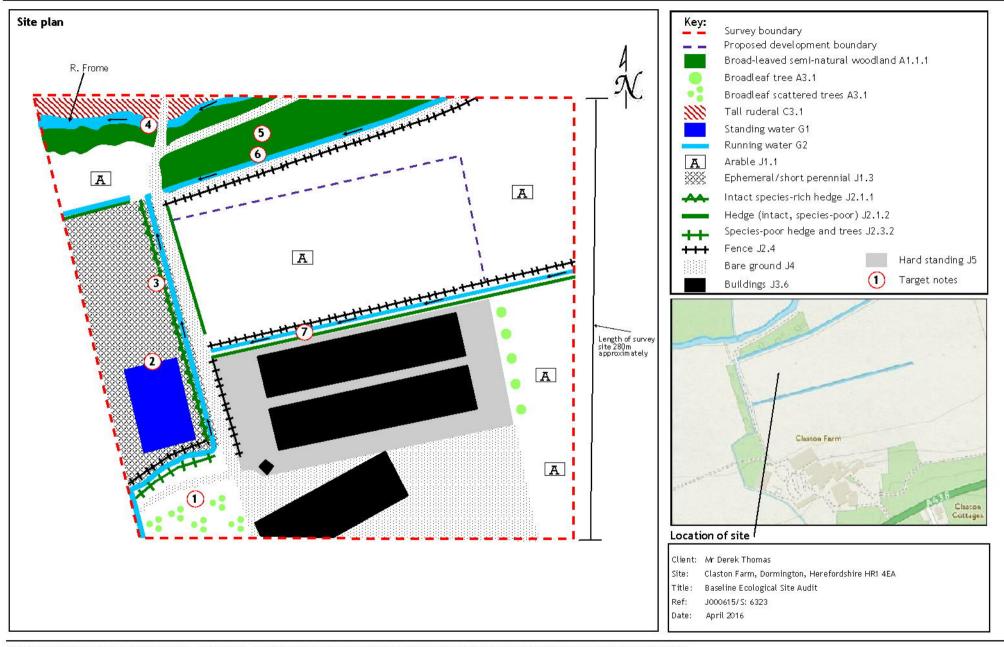
The ditch to be culverted as part of the proposed development is considered to have limited ecological value, and the ecological impact will be negligible in this instance.

Providing the recommendations noted herein are fully implemented and subject to the results of the required further work and satisfactory execution of any mitigation, there are no obvious residual ecological counter indications to the proposed project at this stage. Indeed, the recommended ecological protection and enhancements should ensure there is No Net Loss to biodiversity, and no unacceptable adverse impact on Ecosystem Services. However, it is essential that the ecological recommendations of this report are securely incorporated as formal Conditions within any planning consent the Local Authority is minded to grant, and that their implementation and ongoing care are verified and monitored.

<u>Note</u>

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 <u>before</u> 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).



Based upon Ordnance Survey © Crown Copyright, under licence 100005485, unauthorized reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings. 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

Photographs were taken on 12 April 2016



Plate 1. The traditional orchard at Target Note 1.



Plate 2. The attenuation pond at Target Note 2. There are plans to extend this pond as part of the development proposal.





Plate 3. The hedgerow on the left alongside the water course is the species-rich hedgerow at Target Note 3.



Plate 4. A view looking upstream along the River Frome at Target Note 4.





Plate 5. A view looking east along the water course (Target Note 6), and the broad-leaved seminatural woodland (Target Note 5).



Plate 6. A view looking east along the ditch adjacent to the existing poultry units. This will be culverted as part of the development proposal.





Plate 7. A view looking south towards the site in the crop of wheat where the proposed development will be situated. The two new poultry units will lie alongside the two in the photo.

+++

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.

Betts are a scientific practice. Any information relating to legal matters in this report is provided in good faith but does not purport in any way to give any advice on or interpretation of the law whatsoever. Professional legal advice should always be sought. Any designs, specifications, advice, suggestions, or comments written or verbal relating to construction or supervision of building-related work of any kind are provided for consideration only and under no circumstances are to be interpreted as provision of design, management or supervision *sensu* the Construction (Design and Management) Regulations 2007.



CAPABILITY AND QUALITY ASSURANCE

Founded in 1985 to provide high quality professional services to meet an increasing market demand in applied environmental sciences, the Practice stems from the original Betts family business which was established in 1760 for the refining and recycling of high value industrial wastes and mineral ores. Betts thus offer an unusual blend of technological and practical expertise in a range of environmental disciplines, allied particularly to the biological conservation legislation and biodiversity policies of recent years. Contracts undertaken cover a wide spectrum of projects at local, national and international levels in the construction, extractive, agricultural, leisure, energy and general industrial sectors. Scientific staff belong to appropriate professional institutes by whose codes of practice they abide. Due consideration of the British Standard BS42020 (Biodiversity — Code of Practice for Planning and Development) is included in relevant work and applied where appropriate.

Kevin McGee MRSB FBNA BSc (Hons) MSc. GradCIEEM - Ecologist

Kevin is a life-long natural historian and holds a first class honours degree in countryside conservation from Aberystwyth University, where he was awarded the Aileen Smith Memorial Prize, as well as a masters with distinction in entomology from Harper Adams University. He has extensive experience and knowledge of botanical (including phytosociology) and entomological survey, recording, monitoring, identification and database compilation, plus expertise in fungi and vertebrate fauna. He has a strong understanding of habitats of all kinds, underlying geology and soil types, history of land use and environmental conditions, as well as planning and wildlife legislation and the protective site designation hierarchy in the UK and EU. Kevin also worked for many years in illustration and graphic arts including Designer and Illustrator for Worcester Porcelain.

NB. Whilst all due and reasonable care is taken in the preparation of reports. Betts accept no responsibility whatsoever for any consequences of the release of this report to third parties. Clients are reminded that all work carried out by Betts is subject to our Terms of Trading which may be viewed at any time on our web site at www.bettsecology.com or can be provided on request. Please again be aware that site surveys inevitably miss species not apparent on the date of visit(s) by reason of seasonality, mobility, habits or chance. Results are indicative and given in good faith but they are not a guarantee of presence or absence of any particular taxa

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.

Betts Ecology Ltd Bank House Martley Worcester WR6 6PB United Kingdom

T +44 (0)1886 888445
F +44 (0)1886 888782
E nature@bettsecology.com
South East UK Office: Kent
Northern UK Office: Yorkshire
Research Office: Alpes Waritimes - France



More information is available at www.bettsecology.com

Professional service
Sustainable land management
Enhanced biodiversity
Better planning results

Betts Environment Betts Estates Betts Expert Services