

**Extended Phase 1 Habitat Survey
and Ecological Assessment**

Bank and Ridge Farms, Chickerell, Dorset

Andrew McCarthy Associates



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Disclaimer

This document has been prepared by Andrew McCarthy Associates for CG Fry and Sons solely as an Extended Phase 1 Habitat Survey Report, and visual assessment of ponds and buildings for protected species to support promotion of the site for residential development. Andrew McCarthy Associates accepts no responsibility or liability for any use that is made of this document other than by the client for the purposes for which it was originally commissioned and prepared.

NON-TECHNICAL SUMMARY

An 'extended' Phase 1 Habitat Survey and Ecological Assessment were carried out on land at Bank and Ridge Farms, Chickerell during June 2008.

The proposed development site lies immediately north of Chickerell, Dorset, and includes six improved pasture fields, together with boundary hedges, buildings and two ponds. Whilst all the habitats inspected were botanically rather impoverished, there was potential for at least four key protected taxa to occur: great crested newt (GCN), bats and dormouse, all of which are European protected species, and reptiles, which are protected under the Wildlife and Countryside Act.

With respect to great crested newt, the two ponds in the northern part of the site were assessed as offering suitable breeding habitat, and several more water-bodies were noted on air photos within 500m. There is abundant terrestrial amphibian habitat throughout the site, in the form of rough grassland and scrub (hedges).

Buildings were visually assessed for potential to support bats. The bungalow at Ridge Farm was the only structure to have moderate-high potential for bat use (under the roof tiles); all other buildings examined had low-negligible potential to support significant roosts. Hedges within the site may provide flight routes for bats 'commuting' between roosts in urban land to the south and open countryside to the north, and the fields offer potential foraging habitat. There were no trees with potential to support bat roosts.

Hedges were suitable for dormouse and their margins were noted as potential reptile habitat (for widespread species of reptile, such as slow worm).

It is understood that specialist surveys for protected fauna will be undertaken prior to a planning application being submitted. General mitigation and enhancement options are discussed in the final section of this report.

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1 INTRODUCTION

Andrew McCarthy Associates was commissioned by CG Fry and Sons to undertake an 'extended' Phase 1 Habitat Survey, including a visual assessment of ponds for great crested newt and assessment of buildings for the presence of bats, on land at Bank and Ridge Farms, Chickerell, Dorset. This is to aid the assessment of the land for residential development in the Local Development Framework.

The site lies immediately north of Chickerell, north west of Weymouth in Dorset. The approximate central OS grid reference is SY644 808.

In addition to Phase 1 Habitat mapping, the 'extended' Phase 1 Habitat survey included a search for archive data on protected sites and species, as well as other sites and species of local conservation importance and Regionally Important Geological and Geomorphological Sites (RIGS), in the vicinity of the site.

2 METHODOLOGY

2.1 Desk Study

The Dorset Environmental Records Centre was contacted for archive data on legally protected sites and species, as well as notable species (e.g. Biodiversity Action Plan priority species, Red Data Book species, Red or Amber listed bird species, nationally rare or scarce species), sites of local wildlife conservation importance and RIGS, within a 2 km radius (4 km for bats) of the proposed development site.

In addition the National Biodiversity Network (NBN) Gateway website was interrogated.

2.2 Field Survey

2.2.1 Flora

2.2.2 Habitats

The habitat survey was carried out by Alison Slade MSc, Consultant Ecologist and Andrew McCarthy, from Andrew McCarthy Associates, on 19 June 2008, using the standard Phase 1 Habitat assessment methodology, as recommended by Natural England (Anon, 1993; Anon, 1995). This involved a systematic site walkover to classify and map all of the habitats on site. Target notes were used to record habitats and features of particular interest. After completion of the survey, the field map was digitised using a GIS.

2.2.3 Species

In addition to general habitat classification, a list was compiled of all observed plant species¹. The abundance of each species was estimated for each habitat respectively using standard 'DAFOR' codes:

D = Dominant

A = Abundant

F = Frequent

O = Occasional

R = Rare

(Prefixed by 'L' if only locally dominant, abundant or frequent).

¹ Botanical nomenclature follows Stace (1997).

2.2.4 Fauna

During the habitat survey, particular emphasis was placed on identifying habitats and features capable of supporting protected and notable wildlife species. All habitats and features with such species potential, as well as any evidence to suggest or confirm the presence of those species, were recorded using target notes. The methodologies employed to assess the site for particular protected fauna are outlined below.

2.2.5 Bats

The initial building inspection for bats was carried out by Andrew McCarthy (Natural England bat licence no 20080768).

The following features were searched for:

- Roosts – mature trees and buildings etc;
- Foraging areas and commuting routes –water bodies, woodland edges, hedgerows etc;

The potential of features to support bats is then assessed, taking into consideration physical evidence of bat activity (e.g. droppings and staining in the vicinity of a roost), quality of the potential bat feature(s), the context of the site (i.e. the nature of the surrounding landscape and the degree of connectivity with other suitable bat habitats) and the results of the desk study.

2.2.6 Dormouse

Habitats capable of supporting dormouse *Muscardinus avellanarius*, such as hedgerows and woodland containing abundant food species bramble *Rubus fruticosus* and blackthorn *Prunus spinosa*, were noted. Where no evidence was found, the dormouse potential of suitable habitats was assessed, taking into consideration positioning and connectivity of the site in the wider countryside, as well as the results of the desk study.

2.2.7 Badger

The following evidence of badger *Meles meles* activity was searched for, both on site, and within 30 m of the boundary² (access permitting):

² Any development works within 30 m of a badger sett would require a licence from Natural England.

- Feeding scrapes and scratching posts;
- Latrines – often located near setts, at territory boundaries or adjacent to favoured feeding areas;
- Tracks and pathways;
- Hairs – often caught on fencing;
- Setts – usually distinguishable from other mammal holes by the size of entrance hole and spoil heap, the presence of hairs in the spoil and/or bedding material in the entrance.

2.2.8 Birds

All birds observed during the field survey were recorded, as were features capable of supporting nesting birds (e.g. trees, scrub, woodland and hedgerows). The potential of the site to support species of special conservation concern (i.e. Schedule 1, Biodiversity Action Plan and Red List species) was assessed, taking into consideration the species assemblage observed during the survey, habitats present on and around the site, context of the site in the wider landscape and the results of the desk study.

2.2.9 Reptiles

An assessment of the potential of the site to support reptiles was made, based upon the abundance of suitable habitats on site (e.g. rough, tussocky grassland adjacent to scrub or refuges, the context of the site in the wider landscape and the results of the desk study.

2.2.10 Great Crested Newt

All water bodies on site and within 500 m of the site boundary³ (where accessible) were recorded and described to indicate their potential to support great crested newt (GCN) *Triturus cristatus*. A GCN Habitat Suitability Index was calculated for the two ponds within the site. The potential of terrestrial habitats within the site to support this species was also assessed.

2.2.11 Invertebrates

All identifiable invertebrate species observed during the field survey were recorded. The site's potential to support species of special conservation concern (i.e. Schedule 5, Biodiversity Action Plan and Red Data Book species) was assessed, taking into consideration the species assemblage observed during the survey (although this is

³ Any development works on potential great crested newt habitat within 500 m of a great crested newt colony would require a European Protected Species licence from Natural England.

only likely to be a small fraction of those present), habitats present on and around the site and the results of the desk study.

2.3 Limitations

2.3.1 Desk Study

The data provided by the Dorset Environmental Records Centre and the NBN Gateway was not exhaustive and it is possible that protected and notable species not included in the search also occur within the vicinity of the proposed development site.

2.3.2 Field Survey

The absence of hazel meant it was not possible to carry out a dormouse nut survey.

Off-site ponds were not assessed visually at this stage of the project.

2.4 Quality Assurance & Environmental Management

All ecologists employed by Andrew McCarthy Associates are members of, or are under application for, membership of the Institute of Ecology and Environmental Management (IEEM) and follow the Institute's code of professional conduct when undertaking ecological work.

3 RESULTS

3.1 Desk Study

3.1.1 Protected Sites

3.1.2 Statutory Sites

The site has no international, national or local designation for nature conservation. Part of the 2km study area falls within the Jurassic Coast World Heritage Site and part within the Dorset Area of Outstanding Natural Beauty.

The following Sites of International Importance for Conservation are present within 2km of the site:

- Crookhill Brick Pit Special Area of Conservation (SAC) approximately 1km away;
- Chesil Beach and the Fleet Ramsar site (part);
- Chesil and the Fleet SAC and Special Protection Area (part).

All of these sites are also Sites of Special Scientific Interest.

Crookhill Brickpit SAC is a disused brickpit which has important geological features and contains several ponds supporting great crested newts *Triturus cristatus*, including one which has been recorded as having one of the highest counts of this species in Dorset. Crookhill Brick Pit is also designated as a Local Nature Reserve.

The following additional SSSI is also within a 2km radius:

- SY68/005 Radipole Lake SSSI (part) – also an RSPB reserve.

3.1.3 Non-Statutory Sites

There are three Sites of Nature Conservation Interest (SNCI) within 2km of the site:

- SY67/011 Chickerell Water Lily Farm Site of Nature Conservation Interest (SNCI) (also supports an important population of great crested newt)
- SY68/042 Westend Meadows SNCI
- SY68/015 Broad Coppice SNCI (also on the Ancient Woodland Inventory)

There are no locally designated geological sites within the study area.

3.1.4 Protected Species

3.1.5 Mammals

There are 12 bat roosts recorded by the Dorset Environmental Records Centre within 4km of the site, of which two are within the village of Chickerell (bat species unknown). No horseshoe bats *Rhinolophus sp.* have been recorded.

- There are no dormouse or otter records within 2km of the site;
- There are a number of water vole records from the data search area but there is no suitable habitat for this species on or near the site;
- There is one badger sett recorded within 2km;
- Brown Hare *Lepus europaeus* (a UK Biodiversity Action Plan species) has been recorded.

3.1.6 Birds

A number of birds listed in Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) have been recorded within the search area but of these, none are likely to use habitats present within the site. Examples include hobby *Falco subbuteo* and peregrine *Falco peregrinus* recorded at Butterstreet Cove.

Bird species listed as UK BAP Priority Species due to their recent historic population decline have been recorded within 2km of the site and are likely to use the site. These are:

- Song thrush *Turdus philomelos*
- House Sparrow *Passer domesticus*
- Linnet *Carduelis cannabina*
- Bullfinch *Pyrrhula pyrrhula*
- Skylark *Alauda arvensis*

3.1.7 Reptiles & Amphibians

The Dorset Environmental Record Centre has numerous GCN records in the vicinity of the survey area, including at Newlands Farm, which lies within 500m of the site boundary.

There are records of smooth newt *Triturus vulgaris*, palmate newt *Triturus helveticus* and grass snake *natrix natrix* within 2km of the site.

3.1.8 Invertebrates

The only protected invertebrate recorded within the study area is the Lulworth Skipper *Thymelicus acteon* at Butterstreet Cove, around 1.5km away. This species favours south facing slopes, meadows with scrub and woodland margins. It flies in July to August and hibernates in grass stems.

3.1.9 Flora

No protected plants have been recorded in the study area, except for Bluebell *Hyacinthoides non-scripta* which is protected against intentional uprooting and sale of wild plants due to its listing on Schedule 8 of the Wildlife and Countryside Act 1981, as amended. Bluebell was not recorded during the survey.

3.2 **Field Survey**

The results of the Phase 1 Habitat Survey are presented in the form of a colour-coded, digitised plan (Figure 1, Appendix 1) with Target Notes identifying specific features in Appendix 2. All of the plant species recorded during the survey are listed (with DAFOR ratings for each) in Appendix 3.

3.2.1 Landscape & Habitats

The site lies immediately north of Chickerell urban area and consists of six improved pasture fields, divided by tall species-poor hedgerows situated on a gentle south-facing slope. Several buildings are present, including Bank and Ridge Farms and a stable block. A public footpath runs along the northern boundary, beyond which is open countryside, with grazed pasture and hedges. There are two ponds in the northern section of the site, and two further ponds in the fields immediately to the north.

3.2.1.1 Improved grassland

The vast majority of the grasslands are agriculturally improved fields in a grazing rotation. Perennial rye-grass *Lolium perenne* is dominant across wide areas, together with abundant cock's-foot *Dactylis glomerata*, Yorkshire fog *Holcus lanatus* and common bent *Agrostis capillaris*. Herbs are sparse in most fields, and include broad-leaved dock *Rumex obtusifolius*, creeping buttercup *Ranunculus repens* and white clover *Trifolium repens*. Areas of common nettle *Urtica dioica* occur adjacent to hedgerows .



Figure 1: Improved grassland typical of the site

3.2.1.2 Hedgerows

The fields are divided by species-poor hedgerows which are often broad and well-structured. Blackthorn *Prunus spinosa* is dominant in most hedges, and the few other woody species include hawthorn *Crataegus monogyna*, elm *Ulmus sp.*) and dog rose *Rosa canina agg.* Other woody species which only occur rarely are pedunculate oak *Quercus robur* and wayfaring-tree *Viburnum lantana* (R). The understorey is species-poor, and characterised by ivy *Hedera helix*, hogweed *Heracleum sphondylium* and black bryony *Tamus communis*, with upright hedge-parsley *Torilis japonica*, field bindweed *Convolvulus arvensis*, tor grass *Brachypodium pinnatum*, hart's tongue *Phyllitis scolopendrium* and pendulous sedge *Carex pendula*.

3.2.1.3 Ponds

There are two small ponds close to the northern boundary of the site. The eastern pond (Pond 1) is set into an area of blackthorn scrub backing onto an overgrown hedge line. It is shallow with no marginal plants. Broad-leaved dock is present with floating sweet-grass *Glyceria fluitans* the dominant aquatic. The accessible areas of the pond are heavily cattle poached.



Figure 2: Pond 1

Pond 2 lies to the west and is not linked to a hedgerow, although an area of scrub has developed around it. The surface was covered in duckweed *Lemna minor* at the time of survey, and hard rush *Juncus inflexus* is emergent locally. The edges are cattle poached. On the northern side, a stand of hawthorn *Crataegus monogyna* and goat willow *Salix ssp capraea* is developing.



Figure 3: Pond 2

3.2.2 Protected Species

3.2.2.1 *Mammals*

3.2.2.1.1 *Bats - Building Inspection*

Building	Description	Features suitable for roosting bats	Results of inspection and potential to support bats
1	Corrugated shed used for storage	Ivy covering some of the walls.	Negligible potential
2	Single storey boat repair workshop, brick and rendered building with corrugated roof.	Ivy covering some of the walls.	Negligible potential
3	Small brick and rendered shed with corrugated roof used for storage	Ivy covered	Negligible potential
4	Corrugated shed used for storage, part derelict	Ivy covered.	Negligible potential
5	Ridge Farm - Large residential bungalow of stone with clay tile roof. Roof space converted	Small roof void only (not examined). Some tiles are broken or missing offering potential access under adjoining tiles and possible voids between tiles and internal ceiling skins. Gaps around chimney. Climbers on south side.	High potential
6	Garage/lean to with enclosed roof space used for storage. Timber construction with weatherboarding and a clay tiled roof.	Roof void of approximately 20 square metres. Gaps under weatherboarding.	The roof tiles have high potential. Small numbers of droppings were present just inside door to roof space (species indeterminate) indicative of a small night roost for individual bats.
7	Complex of block and wood clad stables with corrugated roofs.	Gables and ivy present	Negligible potential

3.2.2.1.2 Bats - Landscape features

The hedgerows, tree lines and ponds may be used by commuting and foraging bats
The cattle-grazed pastures are likely to be used by foraging bats.

There were no trees with cavities and crevices suitable as bat roosts.

3.2.2.1.3 Dormouse

Due to the lack of hazel at the site, it was not possible to carry out a check for the characteristic dormouse-gnawed nuts. However, the structure, width and connectivity of the hedgerows to the wider landscape make them suitable dormouse habitat (although they are sub-optimal in that there is a restricted range of food plants).

3.2.2.1.4 Badger

One track which appeared to have been created by badger was present crossing the public footpath in the north west portion of the site, however no other evidence of badger or badger setts were recorded during the survey.

A fox *Vulpes vulpes* earth was recorded (however fox earths are not legally protected).

3.2.2.2 Birds

A number of widespread and locally abundant species were recorded during the survey. The trees, hedgerows and some buildings were suitable for nesting birds.

3.2.2.3 Reptiles & Amphibians

The two ponds present provide suitable great crested newt breeding habitat. A Habitat Suitability Index score for great crested newts of 0.60 was calculated, taking into account features such as size, quality and location. This means that the ponds score as 'average' for great crested newt suitability on a categorical scale. This is a measure of habitat suitability but not a substitute for newt surveys. An HIS score needs to be submitted with European protected species licence applications for GCN.

The grassland and hedgerow is suitable terrestrial habitat for amphibians including great crested newt, as well as for widespread reptile species, particularly slowworm.

3.2.2.4 Invertebrates

No protected or notable invertebrates were recorded during the field survey; potential invertebrate habitat is limited in extent, therefore no further action on these taxa is deemed necessary.

3.2.2.5 Flora

All species recorded at this site are widespread and abundant nationally, and no specially protected species were recorded or are expected to be present.

4 RELEVANT LEGISLATION & POLICY⁴

4.1 Legislation

The two principal pieces of legislation concerning the conservation of wildlife in England are the Wildlife and Countryside Act 1981, as amended by the Countryside and Rights of Way Act 2000 and the Natural Environment and Rural Communities Act 2006, and the Conservation (Habitats &c.) (Amended) Regulations 2007.

The Wildlife and Countryside Act 1981, as amended, consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the Conservation of Wild Birds (Birds Directive). One way in which the Act offers wildlife protection is via the notification of Sites of Special Scientific Interest (SSSI). These are sites designated by the Statutory Nature Conservation Organisation (Natural England in England) based on their flora, fauna, geological or physiographical features. The Act also offers various forms of protection at the species level by making it an offence (subject to exceptions) to:

- Intentionally kill, injure or take any wild bird or their eggs or nests (with exception to species listed under Schedule 2 of the Act);
- Disturb any bird species listed under Schedule 1 of the Act, or its dependent young while it is nesting;
- Intentionally kill, injure or take any wild animal listed under Schedule 5 of the Act (these species include water vole *Arvicola terrestris*, otter *Lutra lutra*, dormouse *Muscardinus avellanarius*, all native bats, all native reptiles and great crested newt *Triturus cristatus*);
- Pick or uproot any wild plant listed under Schedule 8 of the Act.

The Act also contains measures to prevent the establishment of non-native species by prohibiting the release or planting of animals and plants listed under Schedule 9.

The Conservation (Habitats &c.) (Amendment) Regulations 2007 implement Council Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Flora and Fauna (Habitats Directive). The Regulations offer further wildlife protection to the Wildlife and Countryside Act 1981, as amended, via the designation of Special Areas of Conservation (SAC), which are sites important for either habitats or species (listed

⁴ Please note that this legal information is a summary and intended for general guidance only. The original legal documents should be consulted for definitive information. Web addresses providing access to the full text of these documents are given in the References & Bibliography section.

under Annexes I and II of the Habitats Directive respectfully), and by making it an offence to do any of the following to any wild animal listed under Schedule 2 of the Regulations:

- Deliberately capture or kill;
- Deliberately disturb;
- Damage or destroy a breeding site or resting place.

Schedule 2 species include all bats, otter, dormouse, great crested newt, sand lizard *Lacerta agilis* and smooth snake *Coronella austriaca*. In addition, it is an offence to deliberately pick, collect, cut, uproot or destroy any wild plant listed under Schedule 4 of the Regulations. Any activity that would result in a contravention of the Regulations would require a licence from Natural England to avoid committing an offence.

Sites and species protected by other statutes include:

- Special Protection Areas (SPAs) – classified under Article 4 of the Birds Directive, for rare and vulnerable bird species listed under Annex I of the Directive, as well as regularly occurring migratory bird species.
- Ramsar Sites – wetlands of international importance, designated under the Ramsar Convention.
- Areas of Outstanding Natural Beauty (AONB) – designated under the National Parks and Countryside Act 1949, as amended, to conserve natural beauty, including wildlife and physiographic features.
- National Nature Reserves (NNRs) – sites containing the most important natural and semi-natural terrestrial and coastal ecosystems in Great Britain, designated under the National Parks and Countryside Act 1949 and the Wildlife and Countryside Act 1981.
- Local Nature Reserves (LNRs) – nature conservation areas declared by local authorities under the National Parks and Countryside Act 1949.
- Badger – under the Protection of Badgers Act 1992, it is illegal to kill, injure or take a badger or to intentionally or recklessly interfere with a badger sett. Sett interference includes disturbing badgers whilst they are occupying a sett or obstructing access to it. A licence must be obtained from Natural England in order to undertake any activity that would result in a contravention of the Protection of Badgers Act 1992.

Sites with non-statutory protection include:

- Wildlife Sites – Various designations such as County Wildlife Site (CWS) and Local Wildlife Site (LWS) assigned by local authorities on the basis of a site's local conservation importance.
- Regionally Important Geological and Geomorphological Sites (RIGGS) – equivalent to Wildlife Sites for sites containing features of geological and geomorphological interest.

Whilst these sites do not have statutory protection, consideration of their importance is an integral part of the planning process.

The Natural Environment and Rural Communities Act 2006 places a duty on authorities to have due regard for biodiversity and nature conservation during the course of their operations.

4.2 Policy

Planning Policy Statement 9 and its accompanying document ODPM Circular 06/2005 sets out government policy on biodiversity and nature conservation and places a duty on planners to make material consideration to the effect of a development on legally protected species when considering planning applications. Paragraph 99 of the Circular states that it is essential that the presence or otherwise of protected species and the extent to which they may be affected by the proposed development is established before planning permission is granted. PPS9 also promotes sustainable development by ensuring that developments take account of the role and value of biodiversity and that it is conserved and enhanced within the development.

The UK Biodiversity Action Plan (UKBAP) (Anon, 1995), organised to fulfil the Convention on Biological Diversity in 1992, to which the UK is a signatory, has produced a national priority species list with all species included having Species Action Plans. Regional and local BAPs have also been organised to develop plans for species of nature conservation importance at regional and local levels. Ponds are one of the habitats highlighted for action in the Dorset Biodiversity Strategy (2003).

5. Discussion & Recommendations

5.1 Potential Ecological Issues

5.1.1 Great Crested Newt

A Special Area of Conservation (SAC) has been designated under the Habitat Regulations specifically for great crested newt within 1km of the site. Given the presence of this designation, plus suitable breeding ponds both on site and within 500m, the developer is aware that GCN may be an issue and is committed to instructing survey following best practice guidelines (English Nature, 2001), prior to submitting any future planning applications.

Best practice for presence/absence involves a minimum of four survey sessions between mid March and mid June, with at least two sessions being undertaken between mid-April and mid-May. Three survey methods are required; ideally a combination of torch surveys, bottle trapping, egg searching and netting. Should great crested newt be confirmed as present, a further two survey sessions will be required to establish population size, in accordance with good practice. It is likely that a European Protected species (EPS) license will be required prior to site works commencing.

Un-grazed field margins, hedges and pockets of scrub may be of value to feeding and sheltering newts and linear routes such as hedgerows may increase opportunities for newt migration between ponds.

Even if the ponds on the site are confirmed as supporting great crested newts, the authors are confident that development can be carried out in such a way that 'favourable conservation status' (i.e. the population is maintained at or above present levels) could be maintained post-development (this will be a prerequisite if an EPS licence is to be granted). There are substantial opportunities in the site design to maintain much of the existing hedgerow network and it is understood that a belt of land along the northern boundary will be retained and habitat enhancement undertaken. Opportunities include enhancement of existing ponds and creation of new ones, as well as creation of new hibernation sites and foraging habitat. Some trapping and translocation is likely to be required prior to development.

5.1.2 Bats

The internal and external survey of buildings on the site found very low levels of bat usage. Evidence of very occasional use was found in the garage/store to Ridge Farm and the bungalow at Ridge Farm was assessed as having high potential for roosting (under roof tiles). The other buildings examined have negligible potential to support bat roosts of any size.

Whilst no further bat survey is considered necessary at the buildings at Bank Farm or the stables, the developer is committed to undertaken appropriate levels of survey in line with Anon (2007) *Bat Surveys – Good Practice Guidelines* prior to submitting any future planning applications. Surveys are likely to comprise two dusk emergence surveys and one dawn survey, during the period mid-May to August.

The structure of the hedgerows and tree lines, together with presence of ponds makes it likely that bats will be using the site for foraging and commuting to and from roost sites, possibly from roosts in the Chickerell urban area south of the site. Bat activity (transect) surveys would be undertaken alongside surveys outlined above, in line with good practice, prior to any planning applications. The surveys would aim to identify the important foraging and commuting routes (e.g. important hedges) and to identify whether any important feeding areas were present, prior to preparing the detailed mitigation plan. Such surveys could be undertaken between May and September, with mid May to early August (the breeding season) being the most productive months in terms of identifying important habitats for bats.

5.1.3 Dormouse

The presence of suitable dormouse habitat within the survey area indicates that specialist survey will be required to determine whether this European protected species is present. The developer is committed to undertaking this survey in line with best practice prior to submitting any planning applications.

Due to the lack of hazel within the survey area, an artificial nest tube survey will be required. Tubes are normally set in spring, and checked thereafter on a six-weekly basis during the period May – October. Tubes are left in until October, and ideally until November, in order to comply with best practice guidance.

Should dormouse prove to be present, an EPS Licence from Natural England may be required prior to works to remove their habitat, which is most likely to be within hedgerows, tree lines and scrub, much of which is to be retained within the current

design plan. The developer is committed to adopting a design brief including minimising hedgerow breaches and enhancing hedges by planting a mix of additional food plants for dormouse. A detailed mitigation design plan will be drawn up if dormouse is found to be present during the survey.

5.1.4 Badger

Tracks likely to have been made by badger were recorded along the northern belt of trees and scrub, however there do not appear to be any setts present on site. Further survey is not considered necessary at this stage or prior to submission of a planning application, however, the developer is aware that badgers may rapidly open up new setts as the social group expands and that dormant or relict holes may become active setts overnight. A further site walkover will therefore be undertaken prior to commencement of any proposed development to check for new/recently reactivated setts.

5.1.5 Birds

Whilst further bird survey work is not considered necessary in this instance, the developer is committed to adopting measures in the mitigation plan to avoid committing any offences under the Wildlife and Countryside Act 1981 (of killing or injuring a wild bird or damaging or destroying its nest). Operations that may disturb bird nesting habitat, such as works affecting buildings, trees, hedges, scrub or grassland, would be undertaken outside the breeding season (generally taken to run from March to August inclusive⁵), or if this is not possible, a check would be made for nesting birds immediately prior to habitat removal by an experienced ecologist. The mitigation and enhancement measures that will be adopted will include installation of bird boxes on retained trees within or near the site.

5.1.6 Reptiles

A number of areas with potential to support populations of common and widespread reptiles such as slow worm and common lizard were identified during the Phase 1 Habitat survey. As with the other protected species, further survey will be undertaken

⁵ This is a general guide only. The following points may apply depending on habitats on site and the proposed works: 1) Mild winters may encourage some species to nest earlier in the year; 2) Swallow and house martin can breed into early October; 3) Some species, such as pigeons and owls, can breed throughout the year in suitable conditions. It is recommended that, where appropriate, any habitat clearance or building demolition works outside of the typical breeding season is preceded by a site evaluation by an ornithologist in order to prevent a potential breach of wildlife legislation.

pre-planning to establish whether any reptiles are present and, if so, the species and an indication of population size. Areas of retained open space will be improved as reptile habitat. If substantial reptile populations are found to be present it may be necessary to conduct a reptile translocation to remove animals from the proposed development area before any ground clearance works proceeds.

5.2 Mitigation

The choice of mitigation measures will depend on which protected taxa are found to be present on site and the way in which any proposed development might affect them. At this stage however, it is possible to make some general recommendations as to how the ecological impact of the proposed development might be reduced and/or compensated:

- Habitat retention – the loss of existing habitat (particularly woodland, scrub, hedge-banks and mature trees) would be minimised wherever possible;
- Replacement planting – if hedgerows or trees are to be removed they will be replaced in a suitable location nearby. Such planting would target species such as hazel for dormouse;
- The design will ensure that hedgerow breaches will be minimised as far as possible;
- Existing ponds will be retained and adjacent habitat could be enhanced for amphibians
- Nest box installation – loss of potential bird nesting habitat would be compensated by installation of nest boxes throughout the site.

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Web addresses for access to full UK legislation and policy text:

Conservation (Natural Habitats &c.) (Amendment) Regulations 2007:

http://www.opsi.gov.uk/si/si2007/uksi_20071843_en_1

Habitats Directive:

www.europa.eu.int/eur-lex/en/lif/dat/1992/en_392L0043.html

Wildlife and Countryside Act 1981:

www.opsi.gov.uk/RevisedStatutes/Acts/ukpga/1981/cukpga_19810069_en_1

Countryside and Rights of Way Act 2000:

www.legislation.hmso.gov.uk/acts/acts2000/20000037.htm

Natural Environment and Rural Communities Act 2006:

http://www.opsi.gov.uk/acts/acts2006/ukpga_20060016_en_1

Birds Directive:

eur-lex.europa.eu/LexUriServ/site/en/consleg/1979/L/01979L0409-20070101-en.pdf

Planning Policy Statement 9:

www.communities.gov.uk/documents/planningandbuilding/pdf/147408

APPENDIX 1 – EXTENDED PHASE 1 HABITAT MAP

APPENDIX 2 - TABLE 1: TARGET NOTES

Letter	Note
A	Small poached pond with floating sweet-grass and bordered by trees (Pond 1)
B	10 metre strip of blackthorn scrub adjacent to Pond 1 suitable for nesting birds
C	Small poached pond bordered by trees (Pond 2)
D	Remaining wall of limekiln
E	Gappy tree line with elm and ash
F	Fox earth
G	Likely badger track

APPENDIX 3 – BOTANICAL SPECIES LIST

Species		DAFOR rating
<i>Acer campestre</i>	Field maple	O
<i>Crataegus monogyna</i>	Hawthorn	LA
<i>Fraxinus excelsior</i>	Ash	R
<i>Ligustrum ovalifolium</i>	Garden privet	R
<i>Prunus spinosa</i>	Blackthorn	LD
<i>Quercus robur</i>	Pedunculate oak	R
<i>Rosa canina agg.</i>	Dog rose	LF
<i>Rubus fruticosus agg.</i>	Bramble	F
<i>Salix ssp capraea</i>	Goat willow	O
<i>Salix cinerea ssp</i>	Grey willow	O
<i>Sambucus nigra</i>	Elder	O
<i>Ulmus glabra.</i>	English Elm	LD
<i>Ulmus sp.</i>	Elm species	LF
<i>Viburnum lantana</i>	Wayfaring-tree	R
<i>Anagallis ssp arvensis</i>	Scarlet pimpernel	R
<i>Anthriscus sylvestris</i>	Cow parsley	O
<i>Arctium sp.</i>	Burdock	R
<i>Artemisa vulgaris</i>	Mugwort	O
<i>Arum maculatum</i>	Lords-and-ladies	O
<i>Cirsium arvense</i>	Creeping thistle	F
<i>Cirsium vulgare</i>	Spear thistle	O
<i>Convolvulus arvensis</i>	Field bindweed	F
<i>Dipsacus sp.</i>	Teasel	LF
<i>Epilobium hirsutum</i>	Great willowherb	LF
<i>Galium aparine</i>	Cleavers	O
<i>Gallium mollugo</i>	Hedge bedstraw	LF
<i>Geranium dissectum</i>	Cut-leaved crane's-bill	O
<i>Glechoma hederacea</i>	Ground-ivy	O
<i>Hedera helix</i>	Ivy	LD
<i>Heracleum sphondylium</i>	Hogweed	LA
<i>Iris foetidissima</i>	Stinking iris	O
<i>Lactuca serriola</i>	Prickly lettuce	R
<i>Lemna minor</i>	Common duckweed	LD

<i>Lonicera sp</i>	Honeysuckle	R
<i>Matricaria discoidea</i>	Pineappleweed	O
<i>Medicago arabica</i>	Spotted medick	O
<i>Picris echioides</i>	Bristly ox-tongue	F
<i>Plantago major</i>	Greater plantain	O
<i>Polygonum aviculare</i>	Knotgrass	O
<i>Potentilla anserina</i>	Silverweed	LF
<i>Potentilla reptans</i>	Creeping cinquefoil	O
<i>Pulicaria dysenterica</i>	Common fleabane	LF
<i>Ranunculus acris</i>	Meadow buttercup	O
<i>Ranunculus repens</i>	Creeping buttercup	F
<i>Rumex crispus</i>	Curled dock	O
<i>Rumex obtusifolius</i>	Broad-leaved dock	F
<i>Sonchus arvensis</i>	Perennial sow-thistle	R
<i>Tamus communis</i>	Black bryony	LF
<i>Taraxacum officianale agg.</i>	Dandelion	R
<i>Torilis japonica</i>	Upright hedge-parsley	O
<i>Trifolium dubium</i>	Lesser trefoil	O
<i>Trifolium pratense</i>	Red clover	O
<i>Trifolium repens</i>	White clover	F
<i>Urtica dioica</i>	Common nettle	F
<i>Vicia hirsuta</i>	Hairy tare	O