

**LAND AT OLD OAK FARM,
FAIR OAK**

UPDATED ECOLOGICAL APPRAISAL

APRIL 2023

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1.0 INTRODUCTION

1.1 Background

1.1.1 Aluco Ecology Ltd was commissioned to carry out an ecological appraisal of land at Old Oak Farm, by the owner. A site visit was undertaken in September 2022. An update site visit has been undertaken in April 2023.

1.1.2 An ‘Ecological Appraisal’ is a general investigation of the likely ecological and nature conservation issues associated with the site and its potential development. The aim of an Ecological Appraisal is to:

- highlight any features of particular ecological value;
- identify potential impacts to ecology as a result of the proposed works;
- identify any ecological issues that may have legal or planning implications such as the presence of protected species; and
- recommend any further work (such as targeted protected species surveys) if required in order to fully assess the value of the site.

1.1.3 The Government sets out its objectives for conserving and enhancing biodiversity in the National Planning Policy Framework (revised NPPF). The Government’s objectives for planning include an environmental objective ‘to contribute to protecting and enhancing our natural, built and historic environment; including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.’

1.1.4 The Framework goes on to state that at the heart of the planning system is a presumption in favour of sustainable development. Planning Practice Guidance on the Natural Environment provides information on taking biodiversity into account in planning (see Section 15 of the revised NPPF).

1.2 Outline of the Scheme and Site Location

1.2.1 The site is located at the northern end of Fair Oak, at Crowd Hill. It is proposed to develop two new dwellings on site, see **Figure 2**.

1.2.2 The location of the site is shown at **Figure 1**, and site proposals are shown at **Figure 2**.



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Figure 1 Site Location

1.3 Relevant Legislation and Policy

- 1.3.1 The outcomes of this Ecological Appraisal will be tested against relevant legislation and policy; namely the Conservation of Habitats & Species Regulations 2017 (as amended) in relation to the protection of European sites (Special Protection Areas SPA, and Special Areas of Conservation SAC) and European protected species (eg bats, dormouse, great crested newts) (see **Technical Appendix 1**) and the Wildlife & Countryside Act 1981 (as amended) and Countryside & Rights of Way Act (CROW) 2000 for protected species and the designation and protection of SSSIs (see **Technical Appendix 1**). The Protection of Badgers Act 1992 gives protection to Badgers *Meles meles*.
- 1.3.2 In addition to the National Planning Policy Framework and the legislation outlined above, the strategic and local planning policies are the principal policies against which the outcomes of this ecological assessment will be considered; Eastleigh Borough Council Local Plan contains policies relating to ecology, these are outlined at **Technical Appendix 2**.
- 1.3.3 Under the Governments duty to conserve Biodiversity, through Section 41 of the Natural Environment and Rural Communities Act 2006 (NERC, 2006) a number of Biodiversity Action Plans have been prepared for habitats and species of conservation concern, including national BAP and Eastleigh Borough Council BAP 2012-2022 (EBC, 2012) is considered in the ecological site appraisal.
- 1.3.4 Consideration is also given to emerging Environment Act, which has recently received Royal Assent (November 2021). A core element of this is biodiversity net gain through planned development. Local Planning Authorities are beginning to adopt the principals of

demonstrated ‘net gain’ in planning decisions. Further information on provisions within the Environment Act 2021 are provided in **Technical Appendix 1**.

2.0 ASSESSMENT METHODOLOGY

2.1 Introduction

- 2.1.1 The methodology for this appraisal is based on the Guidelines for Ecological Impact Assessment (EcIA) in the United Kingdom published by the Chartered Institute of Ecology and Environmental Management (IEEM, 2006; CIEEM, 2019). Regardless of whether a statutory Environmental Impact Assessment is required, these guidelines provide a robust framework for ecological assessment.

2.2 Site Survey Methodology

- 2.2.1 The first stage of the appraisal is a desk study of the proposed development site and associated zone of influence. As part of this a data search with the Hampshire Biodiversity Information Centre (HBIC) has been undertaken. The desk study provides background information on the site and local environment in order to effectively target field survey and further desk research. The aims of the field survey are to record land-use and broad vegetation types present on the site and in the surrounding areas, and to evaluate the ecological value of the habitats and vegetation communities, along with their potential to support protected species, species of principal importance, and any other notable species.
- 2.2.2 Preliminary Ecology Appraisals can be undertaken year-round, however during the winter months likely value of vegetation and habitats can be harder to determine. On this basis experience and knowledge of the surveyor is used to determine likely value of vegetation, habitats and potential for protected species, and degree of precaution in evaluation. Further details of the methodology used can be found in **Technical Appendix 3**.

3.0 BIOPHYSICAL CHANGES AND THE ZONE OF INFLUENCE

3.1 Introduction

- 3.1.1 In order to be able to target relevant ecological survey and assess the impacts of a development, it is necessary to identify the activities that may result in biophysical changes from the development and the area these cover (i.e. the zone of influence). There are three stages of this development scheme that include activities that may have an impact on features of ecological value; namely site preparation, construction and operation / use.

3.2 Biophysical Changes associated with the Development Scheme – Determination of the Zone of Influence

- 3.2.1 The potential zone of influence of the proposal is determined from the predicted biophysical changes brought about by activities associated with construction and post-construction phases. Therefore, the zone is predicted to extend across the development footprint and locally within the site. The main potential influence off site is the potential for pollution derived from on-site construction and operation.
- 3.2.2 Consequently, desk surveys have been carried out within this zone and backed up by field survey where required.

3.3 Site Preparation / Construction Activities and Biophysical Changes

- 3.3.1 During the construction phase, it is predicted that site preparation activities may include localised vegetation clearance. This phase may affect habitat suitable for wildlife, including protected and/or notable species.

3.4 Predicted Operational Activities during Use Phase and Biophysical Changes

- 3.4.1 During the operational phase it is possible that the scheme may result in changes from current site use; and this may have impacts on features of ecological value or designated sites within the wider area through indirect impacts such as disturbance, air pollution and surface water run-off.

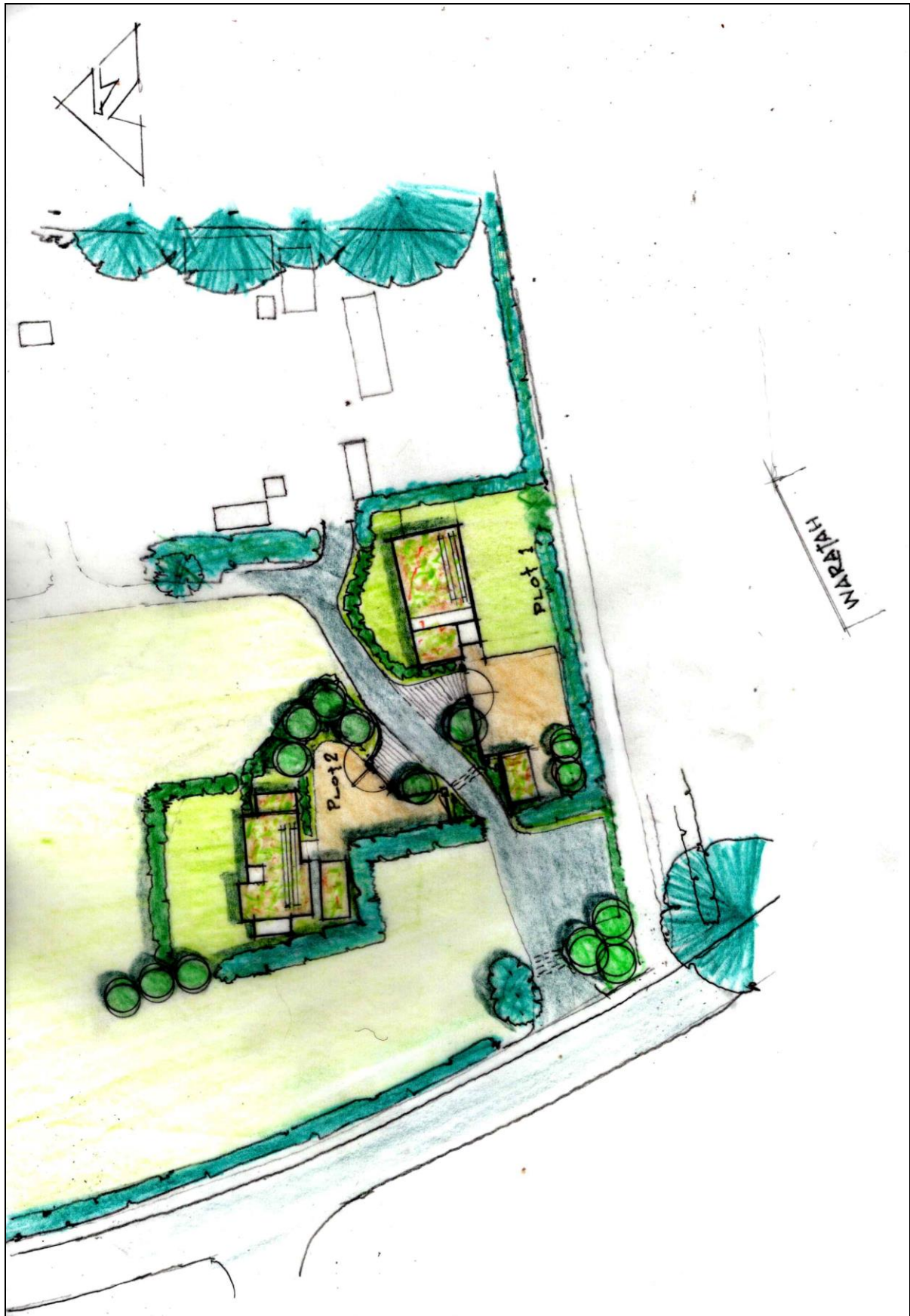


Figure 2: Proposed Development Sketch Plan

4.0 BASELINE CONDITIONS WITHIN THE ZONE OF INFLUENCE

4.1 Introduction

- 4.1.1 The ecological baseline describes the site, and includes descriptions of designated sites and ecological features present within the potential zone of influence of any proposed development.

4.2 Statutory & Non-Statutory Designated Sites

Statutory Designated Sites

- 4.2.1 No Sites of Special Scientific Interest (SSSI) designated of regional to national importance are within 2km of the site. The closest is the River Itchen SSSI, which is c2.1km to the west and designated for its chalk stream riverine habitats and associated species.
- 4.2.2 Citations and conservation objectives detailing the site's special features and operations that may damage the SSSI are downloadable from <https://designatedsites.naturalengland.org.uk/>.
- 4.2.3 A number of Internationally designated sites are present within 15km of the site. Internationally designated sites include Special Protection Areas (SPAs), Special Areas of Conservation (SAC), and Ramsar Sites. These include:
- The River Itchen, which is c2.1km to the west at its closest point, is designated as a SAC for its Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation, as well as the following associated species; Southern Damselfly *Coenagrion mercuriale*, Bullhead *Cottus gobio*, White-clawed (or Atlantic stream) crayfish *Austropotamobius pallipes*, Brook lamprey *Lampetra planeri*, Atlantic salmon *Salmo salar*, and Otter *Lutra lutra*;
 - The Solent European Sites, of which the closest are just over 8km from the site at their closest points and include the Solent & Southampton Water Ramsar Site and SPA, and Solent Maritime SAC. The Solent European Sites are designated for coastal habitats and populations of waterfowl during non-breeding and breeding periods.
 - The New Forest SPA and SAC, designated for heathland and woodland habitats and associated species, including Annex 1 heathland bird species. It is 15.6km to the south west at its closest point.

- 4.2.4 Citations and conservation objectives detailing the sites special features are downloadable from <https://jncc.gov.uk/>.

Non-Statutory Designated Sites

- 4.2.5 There are twelve non-statutory sites of importance for nature conservation importance (SINC), which are designated through the local planning process as being of value to wildlife at the County level within 1km of the site. The majority of these are designated for ancient woodland habitats, but there are a couple designated for unimproved meadow habitats. The closest SINC is The Mount, Fair Oak and Horton Heath, which is designated for its ancient semi-natural woodland habitats.

4.3 Habitats and Vegetation

Introduction

- 4.3.1 The following description is based on site visits carried out on 16 September 2022 with an update on the 21 April 2023. The survey area of the landholding is wider than the proposed development site (shown at **Figure 2**), and is illustrated at **Figure 3** below.
- 4.3.2 The vegetation and main features of the application site are described below and in **Photos 1-14**. The site comprised an area with two park home dwellings, small farm holding, and associated sheds and outbuildings. There are areas of disturbed ground habitats and piles of rubbish. Habitats on site are described below.

Bare Ground, Hardstanding & Disturbed Ground Ruderal

- 4.3.3 The central section of the site has been and continues to be subject to disturbance around accesses and small-scale farming activities, including chicken rearing and goats. There is also an area of raised vegetable beds that is currently defunct. The access includes gravel drive and parking areas at the roadside frontage of the site and around the park homes. Around these are areas that are currently in low use, including for chicken rearing and vegetable plots and have developed a ruderal flora including locally abundant taller species such as Nettles *Urtica dioica*, Bristly Ox-tongue *Helminthotheca echinoides*, Ragwort *Senecio vulgaris* & *S. erucifolius*, Broad-leaved Dock *Rumex obtusifolia* and Creeping Thistle *Cirsium arvense*. And more open ground species including Pineappleweed *Matricaria discoidea*, Fat Hen *Chenopodium album*, Redshank *Persicaria maculosa*, Black Nightshade *Solanum nigrum*, Scentless Mayweed *Tripleurospermum inodorum*, Willowherbs, Bilbao Fleabane *Erigeron floribundas*, and a few species likely to have arrived through chicken feed such as Thorn Apple *Datura stramonium*, Amaranth sp. *Amaranthus* sp., and Cockspur *Echinochloa crus-galli*.
- 4.3.4 Areas dominated by tall ruderal vegetation are present on recently created bunds and along the north eastern boundary of the site. These areas are dominated by Great Willowherb *Epilobium hirsutum*, with some Nettles, Large Bindweed *Calystegia sylvatica*, Thistles *Cirsium vulgare* & *C. arvense*, Field Horsetail *Equisetum arvense*, Teasel *Dipsacus fullonum*, and Common Fleabane *Pulicaria dysenterica*. In the north east corner of the site is also a couple of plants of Meadowsweet *Filipendula ulmaria*, Compact Rush *Juncus conglomeratus* and a single plant of False Fox Sedge *Carex otrubae*.

Grassland

- 4.3.5 Two small areas of grassland are present within the site, and a larger horse paddock. These are shown as Grasslands G1-3 on **Figure 3**. All grasslands on site are likely to have in part derived from a former use of the site as agricultural permanent pasture (c20 years ago), likely with some degree of agricultural improvements. Looking at aerial photography, they have also been subject to disturbance and probably some ground works over the last c15 years.
- 4.3.6 The first area of grassland (G1), at the northern end of the site is a field that is bounded by fences and a bund on its western boundary. It is currently grazed by goats. This field is a

neutral grassland with some likely historical agricultural improvements that contains abundant Creeping Bent *Agrostis stolonifera*, Rye Grass *Lolium perenne*, Cock's Foot *Dactylis glomerata* and Yorkshire Fog *Holcus lanatus*. Hairy Sedge *Carex hirta* was noted as occasional. Herb density is relatively high, but dominated by White Clover *Trifolium repens*. Diversity is low to moderate with other locally frequent species including Ribwort Plantain *Plantago lanceolata*, Greater Plantain *Plantago major*, Broad-leaved Dock, Common Ragwort, Creeping Buttercup *Ranunculus repens*, Red Bartsia *Odontites vernus*, Silverweed *Potentilla anserina*, Dandelion *Taraxacum agg.*, Common Fleabane and Nettles. Aerial photography suggests this meadow was created out of the larger historical pasture on the site, and has been subject to much disturbance in the past 5-10 years. It is currently being grazed by goats.

- 4.3.7 The second area of grassland (G2) is along the southern boundary of the site and is a lawn for the park home properties with some seating areas created, with bunding. This is also a neutral grassland with some likely historical agricultural improvements that contains Rye Grass, abundant Common Bent *Agrostis capillaris*, occasional Crested Dog's-tail *Cynosurus cristatus*, Cocks Foot, Yorkshire Fog, Red Fescue *Festuca rubra*, Timothy *Phleum pratense*, and a single small patch of Tall Fescue *Schedonorus arundinacea*. Herb density is moderate and diversity is low-moderate with species including; abundant White Clover, Yarrow *Achillea millefolium*, Ribwort Plantain, Creeping Buttercup; and occasional to rare, Common Ragwort, Common Knapweed *Centaurea cf debeauxii*, Dandelion *Taraxacum agg.*, Selfheal *Prunella vulgaris*, Silverweed *Potentilla anserina*, Common Sorrel *Rumex acetosa*, Common Fleabane, Red Clover *Trifolium pratense*, and a single plant of Agrimony *Agrimonia eupatoria*.
- 4.3.8 The horse paddock (G3) is also a neutral grassland with likely historical agricultural improvement having derived from previous use as a larger permanent pasture. It is on a slope, and is seasonally damp, with flushing along its eastern edge. The grassland contains Rye Grass, Bent *Agrostis sp.*, Cock's Foot, Yorkshire Fog. Hairy Sedge is frequent to locally abundant in the flushed area. Herb density varies, from low to moderate and high in places. Diversity is low-moderate, with about 10 species per m² on average. Abundant species include Creeping Buttercup and White Clover, with Greater Plantain abundant in the heavily grazed areas. Other species present from locally frequent to rare included Fleabane, Docks *Rumex spp.*, Dandelion, Daisy, Yarrow, Sticky Mouse-ear *Cerastium glomeratum*, Lesser Trefoil *Trifolium dubium*, Ribwort Plantain, Meadow Buttercup *Ranunculus acris*, Silverweed, Common Ragwort, Creeping Cinquefoil *Potentilla reptans*, Birds-foot Trefoil *Lotus sp.*, Field Horsetail, and occasional Common Knapweed. The paddock also contains a small amount of Cuckooflower *Cardamine pratensis*.
- 4.3.9 It is segregated by stock fencing into three units at present. These are marked on **Figure 3** as G3a-c. The largest area, G3a, was heavily grazed during the April 2023 survey. Area G3b had no recent evidence of grazing and was bounded by a bank of Bramble scrub at its southern end. The area was damp with run off flushing to the north. It has abundant Soft Rush *Juncus effusus*, which is mostly absent from G1. Area G3 also contains some flushing, and this area has been impacted by tipping of materials and other rubbish.

Woody Boundaries

- 4.3.8 The eastern edge of the site is dominated by a mature line of trees on a bank with associated dry ditch on the site side. The trees comprise mature Oak *Quercus robur* and Goat Willow *Salix caprea*. The ground flora is dominated by Ivy *Hedera helix* and Nettles.
- 4.3.9 The southern boundary is a fence line with occasional gappy Hawthorn *Crataegus monogyna*, planted young Cherry *Prunus sp.* whips, non-native Fir *cf. Cupressus sp.* and Buddleia *Buddleia davidii*.
- 4.3.10 Two internal sections of the site contain hedgerows dominated by a non-native fir that is managed as 2m wide and 5m high hedge. The eastern fir hedge has a single mature Hazel and a small group of Grey Willow *Salix cinerea* at its northern end. The fir hedging continues along the western boundary of the horse paddock (G3). The western boundary with the main road contains a part native hedge, dominated by either Hawthorn or Blackthorn, and with sections of Sycamore *Acer pseudoplatanus* managed as a hedge. A single Grey Willow is also present. The hedge is on a small bank that has a nutrient rich ground flora with Nettles, Brambles and a few other common herbs. The hedge is part managed to c1.7m wide and 5m high. With the internal fir hedge, it creates a double hedge effect on the western boundary with a c5m gap between the two hedges that was historically a track, but has become vegetated and grassed over.
- 4.3.11 The northern boundary of the site are open and either a tall ruderal on banded and tipped ground or recently developing Bramble (including the invasive *Rubus armeniacus*).

Buildings

- 4.3.12 The site contains two main Park Home dwellings, and associated with these a number of wooden sheds and outbuildings with corrugated tin roofing. A small wooden single skin shed used as a horse shelter is also present in the paddock G3.

Flora

- 4.3.13 No rare or scarce species were noted on site, nor any species listed on Schedule 9 of the Wildlife & Countryside Act. Although not on Schedule 9, Field Horsetail and Thorn Apple are however relatively invasive species. The Oak trees along the eastern boundary of the site are mature trees of local landscape and ecological value.

Evaluation

- 4.3.14 The majority of habitats on site are considered to be of **value within the zone of influence**, all have derived from an element of disturbance, and have evolved since the site became a small holding for animals and as a park home site over the last 20 years. Some of the former pasture grassland species are likely to be present in the small areas of grassland present on the site, but these habitats have also likely to have been subject to some disturbance. The horse paddock grassland and eastern boundary tree line is a habitat of longer continuity and, with its mature Oaks and Willows and woody bank and ditch is considered to be a habitat and feature of **local value**.



Photo 1: Bare ground habitat at site entrance



Photo 2: Bare Ground and ruderal around park homes (April 2023)



Photo 3: Park home and associated outbuildings



Photo 4: Tall ruderal habitats dominated by Great Willowherb



Photo 5: Recently created earth bund on western site boundary with tall ruderal species



Photo 6: Grassland G1 at northern end of site



Photo 7: Grassland G2 at southern end of site



Photo 8: Grassland G3a at north west of site



Photo 9: Grassland G3b at north west of site showing abundant Soft Rush



Photo 10: Grassland G3c at north west of site with tipped materials impacting grassland



Photo 11: Eastern Boundary tree line



Photo 12: Fir Hedge – internal boundary



Photo 13: Willow on internal boundary



Photo 14: Road boundary hedgerow and fir hedge creating a double hedge

4.4 Protected Species

Birds

- 4.4.1 Nesting birds are protected under the Wildlife & Countryside Act, with certain species given additional protection (see **Technical Appendix 1**). Species of conservation concern (Stanbury et al, 2021) noted on the site during the site survey included; Wren *Troglodytes troglodytes*, and Dunnock *Prunella modularis*. In addition, Yellow Wagtail *Motacilla flava* and Meadow Pipit *Anthus pratensis* were recorded from farmland off site to the north on the September visit (likely migrant birds) and a Raven *Corvus corax* was recorded over the site.
- 4.4.2 The data search returned a number of species of conservation concern within 1km of the site, including Barn Owl *Tyto alba*. The buildings on site are unlikely to be of value to this species, being small and regularly disturbed, being associated with the two Park Homes.
- 4.4.3 The habitats present on site are considered to be of **value in zone of influence** for local bird populations, with mixed ruderal, grassland and woody habitat for commoner nesting bird species likely to be present in the zone of influence.

Bats

- 4.4.4 Bats are protected under the Wildlife & Countryside Act and the Habitat Regulations (see **Technical Appendix 1**).
- 4.4.5 A number of small shed outbuildings are present on site, and two Park Home buildings. All these buildings are low single storey, single skin wooden sheds with corrugated tin roofing. Most are open and drafty and no obvious gaps or potential bat roost features were recorded. One of the Park Homes is clad with wood, but there are no obvious gaps between the panels for bat access. The trees were examined for potential bat roost features, and away from the eastern boundary, all are considered young and no potential roost features were noted. The eastern boundary contains mature trees. These were briefly examined and no obvious high potential roost features were noted, however the presence of Ivy and the age of the tree group is such that there may be some lower potential roost features present.
- 4.4.6 The site currently contains suitable foraging habitats for bats with semi-natural habitats and woody boundary linear features.
- 4.4.7 The data search has returned records for the following bat species within 1km of the site; Common & Soprano Pipistrelle *Pipistrellus pipistrellus* & *P. pygmaeus*, Daubenton's Bat *Myotis daubentonii*, Whiskered Bat *Myotis mystacinus*, Natterer's Bat *Myotis nattereri*, Noctule Bat, Brown Long-eared Bat *Plecotus auritus*, and a single Western Barbastelle *Barbastella barbastellus* record from Upper Barn Copse (west of the site). A review of the strategic bat survey by Eastleigh Borough Council (EBC, 2017a) has shown that one of the radio-tracked Whiskered Bats from the study was recorded probably following the eastern tree line of the site on one occasion as part of its foraging routine.

- 4.4.8 The site is considered likely to be of **value within the zone of influence** to bat populations locally, with a small amount of woody foraging habitat for populations of bats in the zone of influence.

Badgers

- 4.4.9 Badgers *Meles meles* are protected under the Protection of Badgers Act 1992. Signs of use of the site by Badger were searched for during the site visit. No evidence of use of the site by Badgers or adjacent to the site was recorded. The data search has returned records of Badger from within 1km of the site.
- 4.4.10 The habitats on site are considered to be of **value in the zone of influence** as potential Badger foraging habitat, with some semi-natural habitat present.

Dormice

- 4.4.11 Dormice *Muscardinus avellanarius* and their habitat are protected under the Wildlife & Countryside Act and the Habitat Regulations (see **Technical Appendix 1**). Woody habitat is present on site, particularly on the eastern boundary, which is mature Oak and Willow tree line. The internal hedges are gappy and mostly non-native fir hedges of lower value as potential Dormouse habitat. On the western edge of the survey area is a roadside mixed broadleaved species hedge (with Hawthorn, Sycamore, and Blackthorn). This hedge is relatively isolated in the landscape, and has only a single connection to the north.
- 4.4.12 The data search has returned a single Dormouse record from within 1km of the site, a record from Stoke Park Wood from 1993. There is suitable woodland habitat in the local landscape, so there is potential for Dormouse presence locally. With the exception of the eastern woody boundary, which has a single connection to the wider woodland landscape, the habitats on the majority of the survey area are however of **negligible value** as potential Dormouse habitat.

Other Mammal Species

- 4.4.13 Given the habitats present on site, no other protected mammals species are considered likely to be present on site. The data search has returned records of West European Hedgehog *Erinaceus europaeus* from within 1km of the site.

Reptiles

- 4.4.14 Commoner reptile species are protected from harm under the Wildlife & Countryside Act. The proposed development area contains some suitable reptile habitat around the margins of grassland and woody boundaries. However, the majority of the ruderal habitats are of low value. The site has been used in recent years for reasonably intensive chicken rearing (up to 50 birds until winter 2021/22 according to the site owner), and there has been ongoing substantial disturbance of most habitats on site (looking at aerial photography from 2004 onwards). On this basis, if reptiles are present, there are only likely to be present in low numbers.
- 4.4.15 The data search has returned records of Grass Snake *Natrix helvetica*, Common Lizard *Zootoca vivipara* and Slow Worm *Anguis* from within 1km of the site.

Amphibians

- 4.4.16 Great Crested Newt *Triturus cristatus* is also afforded protection under the Habitat Regulations (see **Technical Appendix 1**). Suitable terrestrial habitat for amphibians is present on site, similar to those described for reptiles above.
- 4.4.17 The data search has not returned any records of Great Crested Newt within 1km of the site. Reference has also been made to the Eastleigh Borough Council Great Crested Newt Study (EBC, 2018).
- 4.4.18 Ordnance Survey (OS) mapping and aerial photography was consulted for ponds within 250m and 500m of the site. Two potential waterbodies were identified. The first is a very recently created SUDS feature in a new development of housing that is c60m to the south east of the site. This waterbody is c5m x 3m and was virtually dry during the survey. It is likely to be wet during periods of rainfall and had a drainage pipe to allow water to filter out of the feature. A small amount of marginal aquatic vegetation was recorded, including Redshank and Pale Persicaria *Persicaria lapathifolia*, a couple of plants of Soft Rush *Juncus effusus* and Pendulous Sedge *Carex pendula*. Given the very recent creation of this waterbody, and its likely ephemeral nature, it is considered unlikely to be a breeding site for Great Crested Newt.
- 4.4.19 The second waterbody is a garden pond associated with a dwelling in the adjacent Garden Centre. It is c210m from the site. This pond was assessed as being of poor quality under the Great Crested Newt Habitat Suitability Index during an ecological appraisal for the Strategic Eastleigh Site (WYG, 2017). It is fragmented from the terrestrial habitats on site by the main Colden Common to Fair Oak road, which is likely to provide a substantial barrier to newts.
- 4.4.20 Given the above, although there is potential amphibian habitat on site, waterbodies are all of low suitability and/or fragmented from the site in the wider landscape, and Great Crested Newt is therefore unlikely to be present on site.

Invertebrates

- 4.4.21 Some semi-natural habitats for invertebrates are present on site, and the habitat is considered to be of **value within the zone of influence** for invertebrates. The September 2022 survey recorded individual Small Copper *Lycaena phlaeas* and Common Blue *Polyommatus icarus* Butterflies just outside the western boundary of the site, and Roesel's Bush Cricket *Metrioptera roeselii*. Stag Beetle *Lucanus cervus* is present in the local area, and some habitat is present along the eastern boundary tree line.



Figure 3: Habitats on Site (Imagery copyright, Google Earth)

5.0 ASSESSMENT OF LIKELY IMPACTS & POTENTIAL FOR MITIGATION

5.1 Introduction

- 5.1.1 In view of the predicted activities and the resultant biophysical changes associated with the proposal, as described in Sections 2 & 3, and shown at **Figure 2** above, this section identifies potential ecological impacts within the predicted zone of influence.

5.2 Impacts on Designated Sites

- 5.2.1 The designated sites are considered to be sufficient distance from the site to provide significant impacts from additional recreational pressure created by the scheme proposals (two new residential dwellings). This includes the Internationally designated sites on the Solent (c8km away) and the New Forest (c15.6km away). Indirect impacts from run off into any adjacent surface water drains should be considered, particularly during construction and ongoing site use. Construction should have regard to pollution prevention guidelines (eg see gov.uk and Environment Agency guidance).
- 5.2.2 Regard should also be had to potential for nutrient neutrality impacts and follow any guidance for development and potential for indirect impacts on the Solent Designated Sites or River Itchen. A nutrient neutrality assessment of future development proposals is likely to be required to be undertaken, and Eastleigh Borough Council has a nutrient offset scheme for schemes that do not meet nutrient neutrality guidelines.

5.3 Impacts on Habitats & Species on Site

Potential Impacts on Habitats and Vegetation

- 5.3.1 The development is likely to have a direct impact on most habitats within the proposed footprint of the two new dwellings and garden areas, and immediately adjacent. Most of these habitats are of value within the zone of influence, and loss would not result in a significant impact. It is recommended that new garden and lawn habitats should be created out of the existing top soil seed banks for the grasslands on site to allow local opportunity for local grassland habitats to redevelop around proposed new dwellings. If this is not possible then the new lawns in the development could be seeded or turfed with a suitable wildflower mix for flowering lawns. A number of suitable flowering lawn mixes are commercially available that can produce a relatively species rich turf of low growing and flowering plants that can tolerate regular mowing.
- 5.3.2 The horse paddock grasslands are a semi-improved neutral grassland that has derived from the former paddock. They are currently in relatively poor management with tipping on one part and some heavy grazing. The proposed development will see a direct impact on a section of this paddock. The amount of loss of grassland habitat is relatively small. Mitigation for this loss is recommended and the following measures would be of benefit to the retained sections of meadow in the survey area:

- Removal of all rubbish in and adjacent to the paddock (and other semi-natural habitats on site);
- Surface water drainage from the new properties to mimic the existing flushing down the paddock from the south, or could potentially be increased to provide a wetter meadow that would benefit the flora;
- Reduction in heavy horse grazing to reduce overgrazed areas that become dominated by Greater Plantain and White Clover;
- Removal of the Fir hedge along the western edge of the paddock, which was planted within the paddock field and takes up a proportion of this habitat with a lower value habitat;
- If there any use of the paddock for hay, then cutting and removing of hay and aftermath grazing;
- Commitment to not reseeding or agriculturally improving the paddock.

5.3.3 The eastern boundary tree line is of local value and will be retained in situ with buffering and is outside the footprint of the new dwellings/buildings. The western hedgerow is also of value and should be retained in situ. Both are situated away from the new dwellings.

5.3.4 In addition to the measures above, the new dwellings will have hedges around their boundaries. These will in part use some of the existing fir hedges on site, and new hedging and shrubs are proposed. It is recommended that new hedging and woody vegetation contains mixed locally native species, such as Hawthorn, Blackthorn, Hazel, Grey Willow, Field Maple *Acer campestre*, Buckthorn *Rhamnus cathartica*, Holly *Ilex aquifolium*. Where there is a loss of native woody vegetation, this should be replaced on the boundary hedges of the proposed development, or elsewhere of field boundaries within ownership greater than 1:1.

5.3.5 The presence of two potentially invasive species (Field Horsetail and Thorn Apple) should be considered during the construction phase of the development. Any areas with the species should be marked and the soils not reused on the new development to ensure that neither species spreads.

Potential Impacts on Birds

5.3.6 The loss of a small amount of semi-natural habitat is not considered significant in the zone of influence as the area is small, and substantial areas of farmland and woody features are present in the wider landscape.

5.3.7 The woody/scrub habitat has potential to be used by a small number of nesting birds. If such habitat were to be removed during the breeding season there is potential to destroy bird nests, which would be contrary to Section 1 of the Wildlife and Countryside Act 1981 (as amended). Mitigation measures for birds include carrying out works on any woody vegetation at an appropriate time of year, usually considered to be between September to February. Small amounts of vegetation may be able to be removed at other times of year, but only if it is able to be checked to ensure that no nesting birds are present by a suitably qualified ecologist beforehand. See also a proposed example method statement for pre-construction site vegetation clearance at **Technical Appendix 4**.

- 5.3.8 The development could provide an element of mitigation through provision of new shrubs in the gardens, particularly if native, and through provision of bird boxes (for example, House Sparrow, House Martin and Swift boxes). It is recommended that a bird box is placed in each new dwelling, either on the dwelling or within a suitable tree in or adjacent to the garden. The location of the boxes should be agreed with an ecologist.

Potential Impacts on Bats

- 5.3.9 The loss of a small amount of semi-natural habitat is not considered significant in the zone of influence as there are other woody hedgerow habitats and further away small woodland patches. The main woody boundary features are to be retained in situ, and the development proposals provide new linear hedgerows along the edge of each plot. Given the distance of the proposed development to the eastern boundary tree line, no significant impacts are predicted on this line of trees.
- 5.3.10 If any external lighting of the site is required this should consider potential impacts on bats and should be designed to be directional, pointing away from the eastern boundary tree line and off-site hedgerow features. This is in order to retain dark corridors allowing bats to move along the edges the site (particularly the eastern edge of the site) and have regard to best practice guidance on bats and external lighting (see BCT & ILP, 2018).
- 5.3.11 Additional mitigation can be provided through provision of bat boxes/in-built bat features in the new dwellings. It is recommended that each new dwelling has a bat feature installed, location and type should be agreed with an ecologist.

Potential Impact on Badgers

- 5.3.12 No evidence of Badgers Setts was noted during on the site visit, but Badgers are present in the wider local area and therefore there is a potential for them to travel through the site. On this basis the following measures are recommended to minimise impacts from construction on the species:
- trenches in excess of one metre in depth should be covered or secured and a means of escape provided for any animal that does fall in (a suitable escape can be provided by wooden planks placed at a 45 degree angle);
 - any temporarily exposed open pipe system should be capped in such a way as to prevent Badgers gaining access;
 - chemicals and fuels should be stored carefully and as far away from any setts and badger paths as possible, and in accordance with the Code of Construction Practice; and
 - any security lighting (if required) should be directed away from any sett protection zones;
 - A pre-construction works survey should be undertaken on site to ensure no significant changes to the original assessment and presence of setts.

Potential Impacts on Dormouse

- 5.3.13 It is considered unlikely that Dormouse would be present on site, given the location and fragmentation of the internal woody vegetation. However, some of the habitats on site provide limited suitable potential, and therefore a precautionary method statement for removal of habitats is recommended, and an example is set out in **Technical Appendix 4**. However, if there are any impacts on the eastern boundary tree line, further phase 2 Dormouse survey is recommended.

Potential Impacts on Reptiles & Amphibians

- 5.3.14 There is some limited suitable reptile and amphibian habitat on site with limited linkage to gardens in the wider area. If reptiles are present they are only likely to be present in low numbers, given site usage and recent and regular historical disturbance of large areas of the site. Prior to construction as per the method statement, there should be a destructive search of the vegetation on site, supervised by a suitably qualified ecologist. This should ensure that the construction area is stripped of potentially suitable reptile habitat. Following this, the construction zone should be kept clear of vegetation developing that could be suitable for reptiles. A precautionary method statement for removal of habitats is recommended, and an example is set out in **Technical Appendix 4**. This will ensure that there is no direct harm to any reptiles present within the construction zone of the proposed development.
- 5.3.15 The proposed construction area does not impact on all boundary edges of the wider landholding, and it is possible for the method statement to provide suitable receptor locations on site for any reptiles displaced by the development.
- 5.3.16 It is recommended that some of the retained habitats outside the proposed development areas are allowed to develop a tall grassland edge habitat that is valued by herpetofauna. This could be along the edges of the paddock and other retained grassland areas, by non-cutting and preventing grazing along the field boundary edges. This will provide additional habitat for reptiles in the longer term.

Potential Impacts on Other Protected Species/Species of Conservation Concern

- 5.3.17 Given the habitats present on site, and formally present prior to the wider development site commencing construction, there are no additional significant impacts predicted on other protected species groups. The potential for presence of Hedgehog is considered in the precautionary method statement for vegetation clearance (**Technical Appendix 4**). New dwellings should also consider how Hedgehogs move through the site. If any fencing is proposed, there should be gaps present if the fencing is likely to otherwise prevent Hedgehog access to the garden habitats.

5.4 Potential for Additional Mitigation in Masterplanning

- 5.4.1 The development should aim to provide no net loss to biodiversity, and some biodiversity gain. The proposed development could increase biodiversity opportunities in the scheme and local area through the following measures, which include a summary of the mitigation measures set out above:

- Provision of bird and bat boxes suitably located by an ecologist. Bird boxes should include House Sparrow, Swift and/or House Martin;
- Provision of lawn habitats derived from the existing grasslands on site by use of top soil in the two areas of grassland;
- Provision of a mixed a native species hedgerow around the boundaries of the proposed gardens, joining existing off site woody vegetation would provide new linear routes through the landscape and would be a benefit to biodiversity locally;
- Planting of native deciduous trees and shrubs as part of garden landscaping;
- Wildlife friendly ornamental planting (ie pollinator friendly species) to be created in landscaping borders;
- Provision of a pond/wetland feature in the gardens;
- Retention and enhancement of remaining grassland areas of the wider landholding (see 5.3.2 above).
- Removal of tipped materials from the site, particularly the grassland.
- Management of native species hedges for wildlife, with reduced cutting on rotation.

5.5 Update Survey

- 5.5.1 If more than 12 months elapse between the survey and commencement of construction, an update survey is recommended.

6.0 CONCLUSIONS

- 6.1 An Ecological Appraisal was undertaken of the site with a site visit in September 2022 with an update site visit in April 2023. The site comprises a small residential Park Home site with two Park Homes, and associated sheds. There is also areas of annual and tall ruderal vegetation from areas used for small scale farming of chickens and goats. Two small areas of grassland, and some woody vegetation, are also present. The survey has considered potential for protected species and species of conservation, and the zone of influence contains a number of ecological features and protected species. The habitats on site are of value in the zone of influence to local value, and a proportion will be modified or impacted as a result of the proposed development. Mitigation is recommended for the potential presence of protected species, and recommendations/options are provided for creation of new habitats and enhancement of retained habitats in the wider landholding of the survey area.

7.0 REFERENCES

BCT & ILP (2018) Guidance Note 08/18 Bats and Artificial Lighting in the UK, Bats and the Built Environment Series

CIEEM (2015) Guidelines for Ecological Report Writing

CIEEM (2019) Guidelines for Ecological Impact Assessment in the United Kingdom Second Edition

Eastleigh Borough Council (2012) Biodiversity Action Plan for Eastleigh Borough 2012-2022

Eastleigh Borough Council (2018) Eastleigh Borough Local Plan 2016-2036, Great Crested Newt Study

Government & Natural England (2022) Standing Advice for Protected Species from www.gov.uk

IEEM (2006). Guidelines for Ecological Impact Assessment in the United Kingdom

IEEM (2012) Guidelines for Preliminary Ecological Appraisal, Institute of Ecology and Environmental Management, Winchester.

Andrew Stanbury, Mark Eaton, Nicholas Aebischer, Dawn Balmer, Andy Brown, Andy Douse, Patrick Lindley, Neil McCulloch, David Noble and Ilka Win (2021) The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. British Birds 114, December 2021 p723-747

WYG (2017) Strategic Eastleigh Site, Ecological Appraisal

WYG (2017a) Strategic Eastleigh Site, Bat Trapping and Radio-tracking Baseline Report and Evaluation August 2017. The Highwood Group and Drew Smith Group

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Technical Appendix 1
Wildlife & Countryside Act
Habitats Regulations and Schedule 2 Species
Natural Environment & Rural Communities Act 2006

WILDLIFE & COUNTRYSIDE ACT 1981 (AS AMENDED)

The Wildlife and Countryside Act 1981 (as amended) (WCA) is the principal legislation in Britain for the protection and conservation of our wildlife and its habitats of national importance. The legislation adopts a habitat and species based approach to nature conservation. Habitats and some species are protected in designated Sites of Special Scientific Interest (SSSI). Other species are afforded some protection from harm or disturbance by way of inclusion in either Section 1 (birds), Schedule 1 (specially protected birds), Schedule 5 (specially protected animals) or Schedule 8 (specially protected plants).

Protection Afforded to SSSIs

The presence of an SSSI on or near to a development is a material consideration, and this is discussed further in planning policy (see National Planning Policy Framework)

Law Relating to Protected Species

The WCA provides protection to such species in Part 1 of the Act. These sections provide protection from intentionally:

- killing, injuring or taking any wild bird or taking, damaging or destroying the nest or eggs of a wild bird
- disturbing any wild bird in Schedule 1 whilst building, on or near a nest, or disturbing dependant young of such birds
- damaging, destroying or obstructing access to any structure or place of shelter or protection of a schedule 5 animal, or disturbs any such animal whilst it is occupying a structure or place it uses for that purpose
- killing, injuring or taking any animal listed in Schedule 5
- Having in possession or control any live or dead wild bird or egg, or any wild animal in Schedule 5, or trading in any animal under Schedule 5.
- Damage to plants listed in Schedule 8 or uprooting of wild plants unless an authorised person.

Exemption and licences for development can be obtained in certain circumstances. Protected species are also a material consideration in planning applications.

Disturbance & Recklessness

The Countryside and Rights of Way Act 2000 (CRoW Act 2000) adds to protected species legislation in the WCA. The lesser test of 'Recklessness' is added to the protection from disturbance in three circumstances. These are:

- disturbance to Schedule 1 birds and their nests, eggs and dependant young,
- disturbance to Schedule 5 animals in their place of shelter/protection, and
- disturbance to the places of shelter/protection of Schedule 5 animals.

This addition means that any person who deliberately takes an unacceptable risk or fails to notice an obvious risk is falls under the Section irrespective of intention. The CRoW Act also provides greater protection to SSSIs from operations (and non operations) of owners, occupiers and third party users of the SSSI.

For further information see: <https://www.legislation.gov.uk/ukpga/1981/69>

HABITAT REGULATIONS 2017***General***

The Conservation of Habitats and Species Regulations 2017 ('The Habitat Regulations') consolidate the Conservation of Habitats and Species Regulations 2010 with subsequent amendments. The Regulations transpose Council Directive 92/43/EEC, on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive), into national law. They also transpose elements of the EU Wild Birds Directive in England and Wales. The Regulations provide for the designation and protection of 'European sites', the protection of 'European protected species', and the adaptation of planning and other controls for the protection of European Sites.

European Protected Species

Species listed under Annex II of the Habitats Directive were formally afforded protection by the Habitat Regulations. European protected species include the great crested newt, dormice and all species of bats. The provision relating to wild animal offences is reproduced below:

Protection of certain wild animals: offences

43.—(1) A person who—

- (a) deliberately captures, injures or kills any wild animal of a European protected species,
 - (b) deliberately disturbs wild animals of any such species,
 - (c) deliberately takes or destroys the eggs of such an animal, or
 - (d) damages or destroys a breeding site or resting place of such an animal,
- is guilty of an offence.

(2) For the purposes of paragraph (1)(b), disturbance of animals includes in particular any

disturbance which is likely—

(a) to impair their ability—

(i) to survive, to breed or reproduce, or to rear or nurture their young; or

(ii) in the case of animals of a hibernating or migratory species, to hibernate or migrate;
or

(b) to affect significantly the local distribution or abundance of the species to which they belong.

(3) It is an offence for any person—

(a) to be in possession of, or to control,

(b) to transport,

(c) to sell or exchange, or

(d) to offer for sale or exchange,

anything to which this paragraph applies.

(4) Paragraph (3) applies to—

(a) any live or dead animal or part of an animal—

(i) which has been taken from the wild, and

(ii) which is of a species or subspecies listed in Annex IV(a) to the Habitats Directive;
and

(b) anything derived from such an animal or any part of such an animal.

(5) Paragraphs (1) and (3) apply regardless of the stage of the life of the animal in question.

(6) Unless the contrary is shown, in any proceedings for an offence under paragraph (1) the animal in question is presumed to have been a wild animal.

(7) In any proceedings for an offence under paragraph (3), where it is alleged that an animal or a part of an animal was taken from the wild, it is presumed, unless the contrary is shown, that that animal or part of an animal was taken from the wild.

(8) A person guilty of an offence under this regulation is liable on summary conviction to imprisonment for a term not exceeding six months or to a fine, or to both.

(9) Guidance as to the application of the offences in paragraph (1)(b) or (d) in relation to particular species of animals or particular activities may be published by—

(a) the appropriate authority; or

(b) the appropriate nature conservation body, with the approval of the appropriate authority.

(10) In proceedings for an offence under paragraph (1)(b) or (d), a court must take into account any relevant guidance published under paragraph (9).

(11) In deciding upon the sentence for a person convicted of an offence under paragraph (1)(d), the court must in particular have regard to whether that person could reasonably have avoided the damage to or destruction of the breeding site or resting place concerned.

Section 44 provides certain defences to the above.

The granting of a licence under Part 5 Section 55 of the Habitat Regulations

In order to carry out a lawful operation (e.g. development work which has full planning permission) that may result in any of the offences above, it is necessary to obtain a licence from Natural England to allow the operation to proceed.

However, in accordance with the requirements of the Habitats Regulations, a licence can only be issued after the following conditions have been satisfied:

- *that there is no satisfactory alternative, and*
- *that the action authorized will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.*
- *that the action is required in preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment;*

Full planning permission is required to apply for a Natural England licence (where such a consent is necessary for the work to be carried out). In addition, a method statement which details the survey results, methodology of work to be undertaken, mitigation and compensation measures, must be submitted to Natural England with the licence application.

Plans and Projects & Designated Sites

The Regulations provide procedure whereby designated SAC or SPA and other European Protected Sites are afforded protection from plans and projects that may be likely to have a significant effect on the Features for which these sites are designated. Where a significant effect is considered likely in combination with other projects an appropriate assessment is required to be undertaken. Details of this procedure can be found at Part 6 of the Act onwards, see link below.

For Full details of the 2017 Habitat Regulations see:

http://www.legislation.gov.uk/ukxi/2017/1012/pdfs/ukxi_20171012_en.pdf

NATURAL ENVIRONMENT AND RURAL COMMUNITIES ACT 2006

This Act places a specific duty to conserve biodiversity on all public bodies, including Local Planning Authorities. In order to aid with this process Section 41 of the Act requires the Secretary of State to publish lists of living organisms and habitats which are of principal importance for the purpose of conserving biodiversity. These are the national Biodiversity Action Plan (BAP) lists, and BAP projects are also undertaken at a County, Borough or District level.

For further information see: <https://www.legislation.gov.uk/ukpga/2006/16/part/3>

ENVIRONMENT ACT 2021

Royal Assent 9 November 2021

The Environment Act 2021 has recently received Royal Assent and will introduce a number of nature conservation initiatives. These include Biodiversity Net Gain assessments. The following measures are part of the Act (see Gov.UK, 2021):

- Strengthened biodiversity duty;
- Biodiversity net gain to ensure developments deliver at least 10% increase in biodiversity;
- Local Nature Recovery Strategies to support a Nature Recovery Network;
- Duty upon Local Authorities to consult on street tree felling;
- Strengthen woodland protection enforcement measures;
- Conservation Covenants;

- Protected Site Strategies and Species Conservation Strategies to support the design and delivery of strategic approaches to deliver better outcomes for nature;
- Prohibit larger UK businesses from using commodities associated with wide-scale deforestation;
- Requires regulated businesses to establish a system of due diligence for each regulated commodity used in their supply chain, requires regulated businesses to report on their due diligence, introduces a due diligence enforcement system;
- Long-term targets to improve air quality, biodiversity, water, and waste reduction and resource efficiency;
- A target to halt the decline of nature by 2030;
- Environmental Improvement Plans, including interim targets;
- A cycle of environmental monitoring and reporting;
- Environmental Principles embedded in domestic policy making;
- Office for Environmental Protection to uphold environmental law;
- Air and Water pollution measures.

For further information see:

https://www.legislation.gov.uk/ukpga/2021/30/pdfs/ukpga_20210030_en.pdf

Biodiversity Net Gain under the Environment Act

Mandatory biodiversity net gain in England is likely to become law in 2023 (through amendments to the Town & Country Planning Act). The key measures include (see eg Gov.uk & Local.gov.uk):

- Minimum 10% gain required using Biodiversity Metric;
- Habitat secured for at least 30 years via obligations/ conservation covenant;
- Habitat can be delivered on-site, off-site or via statutory biodiversity credits;
- Creation of a national register for net gain delivery sites;
- Continued use of mitigation hierarchy - avoid, reduce, off-set (mitigation and compensation);
- Will apply to Nationally Significant Infrastructure Projects (NSIPs)
- Will not apply to marine development;
- Works alongside existing legal environmental and wildlife protections.

Technical Appendix 2

Local Planning Policy

Eastleigh Borough Council Adopted 2022

Policy DM11, Nature conservation

General Approach

1. The Council will work with statutory and voluntary agencies and developers, and will determine planning applications, to:

a. protect, conserve and enhance all:

- i. international, national and local nature conservation designations; and**
- ii. networks of natural habitats and features, including the Local Ecological Network, Priority Biodiversity Areas and Priority Biodiversity Links, watercourses, wetland complexes, woodland trees, and trees and hedgerows important to biodiversity and local character;**

and facilitate their adaptation to climate change wherever possible;

b. assist in achieving national, county and local biodiversity targets as set out in Biodiversity Action Plans (BAPs);

c. seek a net gain of biodiversity on all development sites (including sites for redevelopment) through the protection, enhancement and connection of existing and provision of new habitats and features of nature conservation interest compatible with the native biodiversity characteristics of the Borough, having regard to local geodiversity and soils; and

d. contribute to major elements of the PfSH Green Infrastructure Strategy and other strategies for the provision and enhancement of multifunctional green infrastructure including green routes, ecological networks and biodiversity enhancements (see strategic policy S9).

International Designations

2. Development which is likely (either individually or in combination with other developments) to adversely affect the integrity of an international or European nature conservation site will not be permitted subject only to imperative reasons of overriding public interest and securing any necessary compensatory measures in the absence of alternative solutions. A ‘project level’ Habitat Regulations Assessment will be required where there are likely significant effects or uncertainty. Any mitigation measures required to ensure no adverse impact must be implemented at the appropriate time.

3. The Council will work with PfSH, Natural England, the Environment Agency and other wildlife organisations to develop and implement with developers a strategic approach to the protection and enhancement of international and European sites from the direct and indirect effects of development. Within Eastleigh Borough this will include:

a. implementing: i. the Solent Recreation Mitigation Strategy (requiring contributions from residential developments within 5.6 kilometres of the Solent Special Protection Area to the Strategy); and

ii. the interim and any future New Forest Recreation Mitigation Strategy if required; or alternative agreed site specific measures to address recreational disturbance;

- b. preserving the water quality and flows within the Itchen and Hamble, Southampton Water and Solent;**
- c. protecting the River Itchen SAC, in particular the maintenance and where appropriate restoration of habitats and qualifying species to favourable conservation status (as defined by article 1 of the Habitats Directive); and**
- d. seek contributions towards measures set out in the Southern Damselfly Conservation Strategy (or other strategy) specifically to deliver biodiversity net gain.**

National and Local Designations

4. Development will not be permitted if it is likely (either individually or in combination with other developments) to have a direct or indirect adverse effect on a Site of Special Scientific Interest (SSSI), Site of Importance for Nature Conservation (SINC) or Local Nature Reserve (LNR) as shown on the policies map (or on a more recent plan provided by the Hampshire Biodiversity Information Centre) unless it can be demonstrated that:

- a. there are no alternative solutions;**
- b. the adverse effects are unavoidable;**
- c. measures are taken to mitigate or, as a last resort, compensate for the adverse effects;**
- d. there is an overall biodiversity net gain; and**
- e. if there are any residual adverse effects which cannot be avoided, mitigated or compensated, the benefits of the development must clearly outweigh the adverse effects on the nature conservation value of the site and any broader impacts on national and local designations.**

Priority habitats, protected and priority species and the local ecological network

5. Development will not be permitted if it is likely (either individually or in combination with other developments) to have a direct or indirect adverse effect on priority habitats, protected or priority species, or on the local ecological network unless it can be demonstrated that:

- a. there are no alternative solutions;**
- b. the adverse effects are unavoidable;**
- c. measures are taken to mitigate or, as a last resort, compensate for the adverse effects;**
- d. there is an overall biodiversity net gain; and**
- e. if there are any residual adverse effects, the benefits of the development clearly outweigh the adverse effects on priority habitats, priority and protected species, and the local ecological network.**

Irreplaceable habitats

6. Development will not be permitted if it results in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees), unless there are wholly exceptional reasons and a suitable compensation strategy

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exists.

Buffers

7. Buffers free from development will be provided to designated sites to avoid/mitigate impacts, including recreational impact and impacts on edge habitats, and to maintain dark skies.

Surveys

8. Development will not be permitted unless it can be demonstrated that:

- a. there have been thorough habitat and species surveys;**
- b. the great crested newt strategic survey and strategy have been considered in all developments within 500m of a great crested newt pond; and**
- c. the strategic bat trapping survey has been considered in all developments within the locality of a woodland or connected habitat networks.**

Policy DM11, Nature conservation

General Approach

1. The Council will work with statutory and voluntary agencies and developers, and will determine planning applications, to:
 - a. protect, conserve and enhance all:
 - i. international, national and local nature conservation designations; and
 - ii. networks of natural habitats and features, including the Local Ecological Network, Priority Biodiversity Areas and Priority Biodiversity Links, watercourses, wetland complexes, woodland trees, and trees and hedgerows important to biodiversity and local character;and facilitate their adaptation to climate change wherever possible;
 - b. assist in achieving national, county and local biodiversity targets as set out in Biodiversity Action Plans (BAPs);
 - c. seek a net gain of biodiversity on all development sites (including sites for redevelopment) through the protection, enhancement and connection of existing and provision of new habitats and features of nature conservation interest compatible with the native biodiversity characteristics of the Borough, having regard to local geodiversity and soils; and
 - d. contribute to major elements of the PfSH Green Infrastructure Strategy and other strategies for the provision and enhancement of multifunctional green infrastructure including green routes, ecological networks and biodiversity enhancements (see strategic policy S9).

International Designations

2. Development which is likely (either individually or in combination with other developments) to adversely affect the integrity of an international or European nature conservation site will not be permitted subject only to imperative reasons of overriding public interest and securing any necessary compensatory measures in the absence of alternative solutions. A 'project level' Habitat Regulations Assessment will be required where there are likely significant effects or uncertainty. Any mitigation measures required to ensure no adverse impact must be implemented at the appropriate time.
3. The Council will work with PfSH, Natural England, the Environment Agency and other wildlife organisations to develop and implement with developers a strategic approach to the protection and enhancement of international and European sites from the direct and indirect effects of development. Within Eastleigh Borough this will include:
 - a. implementing:
 - i. the Solent Recreation Mitigation Strategy (requiring contributions from residential developments within 5.6 kilometres of the Solent Special Protection Area to the Strategy); and
 - ii. the interim and any future New Forest Recreation Mitigation Strategy if

- required;
 - or alternative agreed site specific measures to address recreational disturbance;
- b. preserving the water quality and flows within the Itchen and Hamble, Southampton Water and Solent;
- c. protecting the River Itchen SAC, in particular the maintenance and where appropriate restoration of habitats and qualifying species to favourable conservation status (as defined by article 1 of the Habitats Directive); and
- d. seek contributions towards measures set out in the Southern Damsely Conservation Strategy (or other strategy) specifically to deliver biodiversity net gain.

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4. Development will not be permitted if it is likely (either individually or in combination with other developments) to have a direct or indirect adverse effect on a Site of Special Scientific Interest (SSSI), Site of Importance for Nature Conservation (SINC) or Local Nature Reserve (LNR) as shown on the policies map (or on a more recent plan provided by the Hampshire Biodiversity Information Centre) unless it can be demonstrated that:
- a. there are no alternative solutions;
 - b. the adverse effects are unavoidable;
 - c. measures are taken to mitigate or, as a last resort, compensate for the adverse effects;
 - d. there is an overall biodiversity net gain; and
 - e. if there are any residual adverse effects which cannot be avoided, mitigated or compensated, the benefits of the development must clearly outweigh the adverse effects on the nature conservation value of the site and any broader impacts on national and local designations.

Priority habitats, protected and priority species and the local ecological network

5. Development will not be permitted if it is likely (either individually or in combination with other developments) to have a direct or indirect adverse effect on priority habitats, protected or priority species, or on the local ecological network unless it can be demonstrated that:
- a. there are no alternative solutions;
 - b. the adverse effects are unavoidable;
 - c. measures are taken to mitigate or, as a last resort, compensate for the adverse effects;
 - d. there is an overall biodiversity net gain; and
 - e. if there are any residual adverse effects, the benefits of the development clearly outweigh the adverse effects on priority habitats, priority and protected species, and the local ecological network.

Irreplaceable habitats

6. Development will not be permitted if it results in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees), unless there are wholly exceptional reasons and a suitable compensation strategy

exists.

Buffers

- 7. Buffers free from development will be provided to designated sites to avoid/mitigate impacts, including recreational impact and impacts on edge habitats, and to maintain dark skies.**

Surveys

- 8. Development will not be permitted unless it can be demonstrated that:**
 - a. there have been thorough habitat and species surveys;**
 - b. the great crested newt strategic survey and strategy have been considered in all developments within 500m of a great crested newt pond; and**
 - c. the strategic bat trapping survey has been considered in all developments within the locality of a woodland or connected habitat networks.**

Technical Appendix 3

Ecological Appraisal Method

Introduction

The methodology for this appraisal is based on the Guidelines for Ecological Impact Assessment (EcIA) in the United Kingdom published by the Chartered Institute of Ecology and Environmental Management (IEEM June 2006, CIEEM 2016). Regardless of whether a statutory Environmental Impact Assessment is required, these guidelines provide a robust framework for ecological assessment at any scale.

Desk Study

The first stage of the appraisal is a desk study of the proposed development site and associated Zone of Influence. This provides background information on the site and local environment so as to more effectively target field survey and further desk research.

The Multi Agency Geographical Information for the Countryside (MAGIC) database is searched for information regarding nationally or internationally designated sites within proximity of the development site.

The National Biodiversity Network (NBN) data base is searched to provide background information on local protected species records. The NBN provides access to a substantial volume of biodiversity data for the UK. Although rarely site specific, it does provide valuable background information on the local occurrence of protected species.

Where appropriate, the local environmental/biological records centre is consulted to provide information regarding locally identified sites and records of protected and/or notable species within the zone of influence of the proposed development.

Site Survey Methodology

The aims of the survey are to record land-use and broad vegetation types present on the site and in the surrounding areas, and to evaluate the habitats and vegetation communities ecological value along with the potential to support protected species, species of principal importance, and any other notable species.

Where relevant, habitat immediately adjacent to the site is also assessed as this can have a bearing on the possible presence of protected species on the site and the ecology of adjacent areas can be affected by development nearby.

Habitats and Vegetation

Habitats and vegetation communities are recorded on a broad scale by visually noting contrasting land uses, vegetation zones and landscape features, such as hedgerows and trees. Dominant plant species are recorded in each of the areas identified, as are any notable plant species, such as protected species and habitats or notifiable weeds.

Protected Species

Many plant and animal species are legally protected in the UK. Some, such as bats, badger, water vole and great crested-newt are commonly encountered on development sites.

Case law has established (Regina vs. The Cornwall County Council ex parte Hardy 2001) that “It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted.

For the most regularly encountered protected species, a brief summary of methods follows:

Bats

Bats use buildings and trees for roosting and breeding, and so the potential for any of these features on site to support bats was considered, as was the sites potential for providing bat foraging habitat. An Appraisal survey will consider potential features that could support a Bat roost, and this may include external inspections of the trees and buildings on site. The Appraisal survey will also consider bat habitats in relation to foraging and commuting potential, with semi-natural vegetation features considered and evaluated.

Where an inspection is undertaken this will look for the presence of bats as well as signs of their presence such as Bat droppings, e.g. within cavities and buildings; Staining at potential roost access points; Lack of bat evidence cannot be taken to mean the lack of use by bats because of a number of potential limitations:

- Signs of bats can be easily washed off by wind or rain;
- Droppings are hard to see where rubble and other floor debris may obscure them;
- Low numbers of droppings can easily be missed especially where they may become damp and deteriorate;
- Evidence of bats may not be apparent where bats roost out of view, such as in tree cavities etc.

Badgers

An initial inspection is undertaken during the Appraisal survey for evidence of the presence of Badgers *Meles meles*, in particular Badger setts, on or near to the site. The Appraisal will search for presence of Badger foraging activity and territorial behaviour. Such signs include foraging trails, foraging scrapes in short grass, which are commonly known as 'snuffle holes' (shallow scrapes in soft ground or even turf rolling created by foraging for ground-dwelling invertebrates such as worms and grubs), footprints, hairs caught under fences, sett entrances, and latrine sites.

Dormice

The Appraisal survey will consider the potential for presence of Dormouse on or near the site, principally through habitat suitability, combined with data on occurrence within the area from the data search. Where suitable habitat occurs, further survey for feeding signs on hazel nuts where Hazel occurs, and searches for arboreal nests. If it a site is considered suitable, further Phase 2 survey work may be required.

Other Mammals

Consideration is also given in an Appraisal survey to the potential for habitats to support other legally protected mammals, and those of nature conservation significance. Where waterbodies and watercourses occur on or near to the site, the potential presence of species including Water Vole *Arvicola amphibious* and Otter *Lutra lutra* are considered. Depending upon the geographic location consideration is also given to species such as Red Squirrel.

Breeding Birds

Any notable bird species seen during the Appraisal survey are recorded. The type and quality of breeding, foraging and roosting habitats available for birds is also considered and interpreted with particular reference to protected or notable bird species, and birds of conservation concern.

Consideration is given to any features which could support nesting birds, including buildings and other structures, and areas of vegetation that may be affected by a development.

Reptiles

Any areas of habitat considered suitable for supporting reptiles are noted (for example, areas of rough grassland and scrub, banks, burrows, and rubble piles, compost heaps). If a site is considered suitable, further Phase 2 survey is usually required if an impact from the development or project is considered likely.

Great Crested Newt

An Appraisal Survey considers habitat suitability, through the occurrence of suitable ponds and/or terrestrial habitat, and this will be combined with knowledge on their distribution from biological records for the area. If a site is considered suitable, further Phase 2 survey is usually required if an impact from the development or project is considered likely.

Invertebrates

A very small proportion of invertebrates are afforded legal protection under the Wildlife and Countryside Act 1981 (as amended), although a relatively high number of invertebrates are included within the UK and local BAPs, and many more species are identified as being Nationally Scarce. Most invertebrates require specialist knowledge in order to identify them, although some groups, including butterflies and dragonflies, can be readily identified by generalists. Therefore, apart from recording any species of these readily identifiable groups, an Appraisal Survey concentrates on recording the presence of any key habitats of nature conservation importance considered suitable for supporting more scarce and restricted invertebrates, for example bare ground, dead wood and botanically rich habitats.

Survey Constraints and Limitations

An Appraisal survey is carried out during a brief window of time. Therefore the survey can only provide a snapshot of the range of plants and animals that might be present. However, professional judgement is used to interpret the habitat features recorded, and their likely value for supporting protected and notable species, including species of principal importance. Survey can also be restricted through land access as it is unusual to have a landowner owning land surrounding that which is being surveyed.

Assessment Guidelines

Introduction

The IEEM guidelines (2006) and updated in 2016 (CIEEM, 2016) provide three principal reasons for an ecological feature being valued and therefore included: biodiversity value, social/community value, and economic value.

The evaluation and assessment undertaken assigns one of a number of value labels based on a geographic scale as follows:

- International
- National
- Regional
- County
- District
- Local (Parish)
- Within the zone of influence

Value is determined with reference to the following factors:

- level of designation (sites) or biodiversity-based protection (legal and policy);
- biodiversity value (e.g. inclusion in Biodiversity Action Plans, rarity, position in ecosystem, assemblages and communities, size and diversity);
- social and economic value;
- legal issues (eg protected sites).

All impacts of the scheme on features of local importance or greater are assessed in the impact assessment stage

Assessment of Likely Impacts

The ecological impact assessment methodology used is based on the following considerations.

Characterisation of Likely Impacts

The potential impacts identified as a result of the proposals are characterised according to the following parameters:

- Positive or negative
- Magnitude (and extent if not synonymous)
- Duration
- Reversibility
- Timing and frequency

Significance of Impact

A significant impact on a valued ecological feature (whether negative or positive) is defined in CIEEM's guidelines as an impact on the integrity of a defined site or ecosystem, and/or the

conservation status of habitats or species within a given geographical area. These terms are defined below.

Integrity

Integrity is defined as follows. ‘*The integrity of a site is the coherence of its ecological structure and function, across its whole area, that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was classified.*’ A site or ecosystem that achieves this is considered to be at favourable conservation status.

Conservation Status

For habitats, conservation status is determined by the sum of the influences acting on the habitat and its typical species, which may affect its long-term distribution, structure and functions as well as the long-term survival of its typical species within a given geographical area.

For species, conservation status is determined by the sum of the influences acting on the species, which may affect the long-term distribution and abundance of its populations within a given geographical area.

Impact Prediction

For guidance as to whether an impact is likely to result in an adverse effect on the integrity or conservation status of a feature, reference has been made to the conservation objectives for that feature where they are available, for example in habitat and species action plans. Otherwise professional judgement has been made based on available information.

The confidence in the prediction that an activity will give rise to a significant adverse impact on a valued ecological feature is given based on a four point scale:

- Certain (or near-certain);
- Probable;
- Unlikely; and
- Extremely unlikely

Drawing Assessment Together

The above factors – value, integrity and conservations status of the feature, prediction and characterisation of the impact and overall significance of the impact is brought together in the final assessment. This is done without additional mitigation measures that may be proposed. An impact is then summarised as significant or not.

Mitigation, Compensation and Enhancement

Where impacts are characterised as significant mitigation or compensation may be offered to prevent, reduce or offset such impacts. In addition enhancement measures may be built into a scheme to ensure that the scheme is compliant with the proactive measures outlined in the latest Government policy on nature conservation (National Planning Policy Framework).

Technical Appendix 4

Precautionary Method Statement for Vegetation Works

The following mitigation method statement is recommended to be implemented to ensure that the vegetation works will not impact any protected species discussed above:

(1) Prior to any works, the woody vegetation and surrounding area will be carefully examined by the ecologist acting as an Ecological Clerk of Works:

- It is recommended that cutting of vegetation to above stump level is undertaken outside the nesting bird season. Small amounts of vegetation may be checked during the nesting bird season, and where this is a case, a check will be made for any nesting bird potential during the nesting season (March-end Aug). Where an active bird nest is located then works cannot take place until the nest is no longer active;
- A fingertip search will be undertaken by a qualified ecologist for any Dormice nests or hibernation nests within the works area. Given that there is limited leaf litter and the area is small (1 mature Hazel, c4 Grey Willow and Fir hedging), the area is considered discrete enough to be thoroughly checked. If any evidence of Dormice is recorded then the works will not be able to be undertaken, and a European Protected Species Licence will need to be applied for;
- A check will be made of any potential reptile/herpetofauna refuges. Given the extensive disturbance and disturbed habitats in the works area, there is only low potential for reptiles. If a population of reptiles is however recorded, other than just <10 individuals, then a dedicated reptile translocation strategy will be required;
- If any evidence of Great Crested Newt is recorded then the works will not be able to be undertaken, and a European Protected Species Licence will need to be applied for;
- As part of above checks, potential for presence of other species of conservation concern (eg Hedgehog), will also be undertaken.

(2) Following the initial check, the vegetation can be removed from the works area using the following steps:

- The woody vegetation within the works area on site should ideally be cut to c10-30cm above ground level following initial ecological checks above. The most suitable time of year would be Sept-Oct outside the bird nesting season, but when Dormouse are still active;
- It is recommended that cutting is made outside the bird nesting season (bird nesting is March-end Aug), however small amounts may potentially be undertaken during the bird nesting season, this should only take place when a check by an experienced ecologist has confirmed that there are no nesting birds in or immediately adjacent to the works area (see above);

- If undertaken during the winter period, a fingertip search of potential for Dormouse hibernation nests should be made prior to works starting, by an experienced Dormouse ecologist;
- Cutting should be undertaken by hand tools only and cuttings removed and/or chipped with chippings removed;
- Following removal of the woody vegetation, the stumps can be grubbed out, under supervision of an ecologist, undertaking a destructive search for reptiles. This should be preceded by a further check by the ecologist and destructive search by hand of any habitat that can be dismantled by hand;
- The removal of stumps can only take place during the period April – mid Oct when reptiles are active;
- If any herptofauna is located they should be moved by the ecologist to suitable areas adjacent to the site on the northern and western site boundaries that are not impacted.
- If Great Crested Newt are recorded, work should stop and a European Protected Species Licence will be required;
- If any evidence of Dormouse is found during any of the works, works will be required to stop and a European Protected Species Licence will be required.