

71 STAKES HILL ROAD, PURBROOK, WATERLOOVILLE, HAMPSHIRE

EXTENDED PHASE 1 ECOLOGICAL ASSESSMENT

Final Document

July 2014

Phase 1 and 2 Ecological Assessments • NVC • EclA • Management Plans • Protected Species Licensing
Habitats • Badger • Bats • Dormouse • Birds • Reptiles • Amphibians • Invertebrates • Riparian and Aquatic Species

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Appendix 1 Drawings

- ADP Architects Ltd 'Location Plan' Job No. 1663, Drawing No. L01 dated July 2013.
- ADP Architects Ltd 'Site Layout' Ref. 1663-01.
- J. Brotherton and Partners 'Topographic Land Survey' Drawing No. 14072 dated 17th May 2014.

Appendix 2 Protected Species Legislation

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EXECUTIVE SUMMARY

- An extended Phase 1 ecological assessment was undertaken on 25th June 2014 at 71 Stakes Hill Road, Purbrook, Waterlooville, Hampshire PO7 7BH. The proposals entail the construction of a new residential dwelling within the garden of 71 Stakes Hill Road situated just south of the property, a new access route and associated landscaping.
- The ecological assessment, comprising an extended Phase 1 ecological survey, was undertaken to ascertain the potential for protected habitats and species to be present within the site.
- The site is situated in a built up residential suburb within the town of Waterlooville, Hampshire, just south-west of Junction 3 of the A3 motorway. The site comprises long species-poor improved grassland bordered by hedgerow and woodland comprising the garden south of 71 Stakes Hill Road. The site is surrounded by residential housing and associated gardens, with an area of woodland bounding the site to the east.
- No protected species were recorded during the survey. The site has low potential to support foraging/commuting bats on occasion and a small number of breeding birds within the boundary hedgerows. The grassland has low potential to support foraging/commuting badger, common species of reptile and great crested newt. There is negligible potential for other protected species to be present on site.
- No recommendations are made in respect of protected species.
- If works have not commenced at the site by June 2016, an updating Phase 1 ecological assessment is recommended, as the ecological situation may have changed.

1.0 INTRODUCTION

1.1 Background

Ecological Survey & Assessment Limited (ECOSA) have been contracted by Wilson House Developments Limited to undertake an extended Phase 1 ecological assessment at 71 Stakes Hill Road, Purbrook, Waterlooville, Hampshire PO7 7BH. The site is centred on National Grid Reference (NGR) SU 68772 08530.

This report presents the findings of the Phase 1 ecological assessment carried out by ECOSA on 25th June 2014.

1.2 Aims and Scope of Report

This report is based on a Phase 1 field survey and desktop study which is aimed at assessing the suitability of the site and its immediate surrounds to support notable habitats and protected species. This information allows an initial assessment of the biodiversity value of the site to be made.

1.3 Site Setting and Description

71 Stakes Hill Road is situated in the South Coast Plain & Hampshire Lowlands Natural Area, described by Natural England as follows¹:

"The landscape of the South Coast Plain and Hampshire Lowlands is split between the generally open, often featureless landscape of the coastal plain and the more varied landscape in the west. The Natural Area contains a number of nature conservation features. Although relatively small in extent, the south-facing slopes of Portsdown Hill support some high quality chalk grassland, and the chalk rivers of the Itchen and Test flow through the Natural Area, supporting fine examples of threatened habitat and several key species. The floodplains of the Rivers Test and Itchen contain some botanically rich neutral grassland and elsewhere in the Natural Area fen and fen-meadows occur, especially where chalk springs arise at the foot of the downs."

The site is situated in a built up residential suburb within the town of Waterlooville, Hampshire, just south-west of Junction 3 of the A3 motorway. The site is located approximately 3.48km (kilometres) north-west of central Havant and approximately 3.22km north of Chalkdock Lake, which forms part of the northern area attributed with Langstone Channel on the south coast.

¹ Natural Areas are defined by Her Majesty's Stationery Office as 'biogeographic zones which reflect the geological foundation, the natural systems and processes and the wildlife in different parts of England, and provide a framework for setting objectives for nature conservation' (Biodiversity: The UK Steering Group Report, HMSO, 1995).

The wider landscape comprises of urban development situated along the coast and open countryside, fields, associated hedgerows and areas of ancient and coppiced woodland and copse to the west, north and east, on the southern fringe of the South Downs National Park.

The site comprises long species-poor improved grassland bordered by hedgerow and woodland comprising the garden south of 71 Stakes Hill Road. The site is situated along the eastern side of Stakes Hill Road opposite Gloucester Road. The site is surrounded by residential housing and associated gardens, with an area of woodland bounding the site to the east.

1.4 Site Proposals

The site proposals entail the construction of a new residential dwelling within the garden of 71 Stakes Hill Road situated just south of the property, a new access route and associated landscaping.

The construction start date was unknown at the time of preparing this report but is assumed to be during 2014; the planning application is due to be submitted in the latter part of 2014. The proposal drawings against which this report is based are as follows (**Appendix 1**):

- ADP Architects Ltd 'Location Plan' Job No. 1663, Drawing No. L01 dated July 2013.
- ADP Architects Ltd 'Site Layout' Ref. 1663-01.
- J. Brotherton and Partners 'Topographic Land Survey' Drawing No. 14072 dated 17th May 2014.

2.0 METHODS

2.1 Introduction

This section details the methods used during the Phase 1 ecological assessment undertaken at 71 Stakes Hill Road, Waterlooville, Hampshire.

2.2 Desk-Based Assessment Methods

2.2.1 Multi-Agency Geographic Information for the Countryside (MAGIC)

The Multi-Agency Geographic Information for the Countryside (MAGIC)² database was accessed on 1st July 2014 in order to establish the presence of statutory designated sites located within the vicinity of the site. This included a search for all internationally designated sites such as Special Protection Areas (SPAs), Special Areas of Conservation (SACs) and Ramsars within 1km of the site and a search for nationally designated sites including Sites of Special Scientific Interest (SSSIs), Local Nature Reserves (LNRs) and National Nature Reserves (NNRs) within 1km of the site.

2.3 Phase 1 Field Assessment

The Phase 1 ecological field survey was carried out on 25th June 2014. The survey involved a walkover of the site to identify the habitat types present and to record evidence of protected species, with particular reference to badger *Meles meles*, bats, dormouse *Muscardinus avellanarius*, breeding birds, reptiles, great crested newt *Triturus cristatus* and terrestrial invertebrates. Details of the species-specific survey methods are given below.

2.3.1 Vegetation

An assessment was made of all areas of vegetation within the site using the standardised Phase 1 survey methodology³. This involved a walkover survey to identify broad vegetation types, which were then classified against Phase 1 habitat types. A list of characteristic plant species for each vegetation type was also compiled.

2.3.2 Badger

The survey involved a detailed investigation of the site to identify evidence of badger residence, foraging or territorial activity. Particular emphasis was placed on locating badger setts, paths, and signs of territorial activity such as latrine sites both on site and within immediately adjacent areas where access was possible.

² <http://defra.magic.gov.uk>

³ Handbook for Phase 1 habitat survey: A technique for environmental audit – Field manual (2003), *Joint Nature Conservation Committee (JNCC)*

2.3.3 Bats

An assessment was made of the suitability of trees on the site and immediately on the site boundary to support roosting bats based on the presence of features such as holes, cracks, splits, loose bark and ivy cladding. An assessment was made of the suitability of the site and the surrounding landscape to support foraging and/or commuting bat species. The survey conformed to current Bat Conservation Trust guidelines⁴.

2.3.4 Dormouse

The assessment for the potential of the site to support dormouse was based on an assessment of habitat features that may indicate that dormice are present on the study area. This includes the presence of food sources such as common hazel *Corylus avellana* and honeysuckle *Lonicera periclymenum*. Additionally, the species requires a continuum of food supply so that habitat structure, diversity and connectivity to adjacent areas of woodland/scrub are important features for determining the potential presence of dormice.

2.3.5 Breeding Birds

The assessment of breeding birds on the site was based on the suitability of habitat present, evidence of nesting such as old or currently active nests and the presence of bird species that may potentially nest within the available habitat.

2.3.6 Reptiles

The reptile survey was based on an assessment of the suitability of habitat present within the site to support a population of common reptiles. Reptiles particularly favour scrub and grassland interfaces and the presence of these is a good indication that reptiles may be present on site. In addition, reptiles may utilise features such as bare ground for basking, tussocky grassland for shelter and compost heaps and rubble piles for breeding and/or hibernating.

2.3.7 Great Crested Newt

The assessment of the site to support great crested newts included establishing the presence of suitable aquatic habitats such as ponds within or adjacent to the site and the presence of suitable terrestrial habitat. Ponds that are densely shaded, highly eutrophic or that contain fish are likely to be less suitable for this species.

In addition, online mapping resources at a minimum scale of 1:25,000 were used to identify the presence of ponds or other waterbodies within a 500 metre (m) radius of the site. The 500m is a standardised search radius to assist in the assessment of the

⁴ Hundt L (2012) *Bat Surveys: Good Practice Guidelines*, 2nd edition, Bat Conservation Trust (BCT)

potential of a site and its surrounding habitat to support this species, based on current Natural England guidance⁵.

2.3.8 Terrestrial Invertebrates

An assessment was made of the site for its potential value to support diverse communities of invertebrates or any Biodiversity Action Plan (BAP) or scarce species. The assessment was made based on the presence of habitat features which may support important invertebrate communities. These features include, for example, an abundance of dead wood, the presence of diverse plant communities, the presence of varied woodland structure and sunny woodland edges with a diverse flora, presence of ponds and water courses and the presence of free draining soil exposures. During the Phase 1 survey there was no attempt made to identify species present and where a site supports features that may be of importance to invertebrates then further Phase 2 surveys may be required to assess the importance of the site.

2.4 Initial Protected Species Assessment

Details of the assessment criteria used to determine the ecological value of on-site attributes during the Phase 1 survey is outlined below. During a Phase 1 survey the assessment criteria is based on the potential for the site to support the species considered, this is usually based on the on-site habitat features and their suitability for the species considered. However, in many cases Phase 2 surveys will be required to assess the status of species and hence the importance of a population at the site, therefore the assessment of value should be considered a provisional assessment.

2.5 Criteria used to Assess Ecological Potential

Table defines the criteria used to assess the potential the site, and its trees to support protected species, based on the habitat characteristics of the site.

2.6 Criteria used to Assess Ecological Value

The ecological values provided within this report are based around both professional judgement and current published relevant guidance, including information sources such as "A Nature Conservation Review", Ratcliffe, D.A. (1977)⁶ and "Guidelines for Ecological Impact Assessment in the United Kingdom", IEEM (2006)⁷. Values provided are within the context of the site itself.

⁵ Great Crested Newt Mitigation Guidelines, Natural England, August 2001.

⁶ Ratcliffe, D. (1977) A Nature Conservation Review. Cambridge University Press

⁷ CIEEM (2006) Guidelines for Ecological Impact Assessment in the UK

Table 1: Criteria used to assess ecological potential

	Bats ⁸	Other Protected Species ⁹
	Tree Assessment	
Species Present	In some instances, bat presence can be confirmed from trees e.g. where staining or droppings are visible; where roosting bats have been observed entering/emerging from a tree; or where roosting bats can be heard.	The presence of a protected species can sometimes be confirmed by evidence recorded, for example guard hairs or latrines for badger or hazel nuts gnawed in the characteristic style for dormice.
	If species are likely to be affected by the proposals, further Phase 2 surveys will be required to establish the status of the species present.	
High Potential	Trees with features such as loose bark, splits and deep or extensive holes suitable for roosting bats. High potential trees are generally large and/or mature specimens.	On-site habitat is of high quality for a species or species group. The site is within or near a geographic stronghold. Good quality surrounding habitat and good connectivity.
	If species are likely to be affected by the proposals, further Phase 2 surveys will be required to establish the presence/likely absence of the species.	
Medium Potential	This category includes trees with some interest for tree-roosting bats such as broken snags, some flaking bark, a covering of ivy or shallow holes.	On-site habitat is of moderate quality, providing most of the species/species group requirements. Limiting factors may include small habitat area or disturbance.
	If species are likely to be affected by the proposals, further Phase 2 surveys will be required to establish the presence/likely absence of the species.	
Low Potential	Low potential trees have some, although generally limited potential to support tree-roosting bats, or ivy may obscure roost features.	On-site habitat is of poor to moderate quality for the species or group. Presence cannot be discounted on the basis of distribution, isolation, surrounding habitats, etc.
	If species are likely to be affected by the proposals, further Phase 2 surveys will be required to establish the presence/likely absence of the species.	
Negligible Potential	Trees that provide few or no features with bat roosting potential.	Site includes very limited or poor quality habitat for the species /group; surrounding habitat is unlikely to support wider populations.
	Further Phase 2 surveys are unlikely to be required as species is unlikely to be present.	

⁸ The criteria are an attempt to qualify the potential for a given tree to support roosting bats and are to a degree subjective. Bats may make use of a single feature on an otherwise unsuitable tree and therefore an assessment of bat potential cannot solely be based on the quantity of potential roost features present.

⁹ Badger, dormouse, breeding birds, reptiles, great crested newt and terrestrial invertebrates.

2.7 Phase 1 Survey Timing and Weather Conditions

The extended Phase 1 ecological survey was carried out by Simon Colenutt (Natural England Bat Licence No. CLS00610) of ECOSA on 25th June 2014. The weather conditions were dry with approximately 40% cloud cover, an ambient temperature of 16°C and an average wind force of 2 on the Beaufort Scale.

2.8 Phase 1 Survey Equipment

During the Phase 1 survey the surveyor was equipped with 10x40 binoculars, a high powered torch and a digital camera.

2.9 Phase 1 Survey Limitations

It is not always possible to provide definitive assessments of a species' presence/likely absence at a site and so in the absence of direct evidence, assessments and recommendations are based on the presence of suitable habitat within/adjacent to a site and the results of species records within the desk study data.

3.0 RESULTS

3.1 Introduction

This section details the results of the extended Phase 1 ecological assessment undertaken at 71 Stakes Hill Road, Waterlooville, Hampshire during June 2014.

3.2 Desktop Study

3.2.1 Statutory and Non-statutory Designated Sites

The MAGIC website search revealed that there are no statutory designated sites of nature conservation situated within a 1km radius of the site. There are five areas of ancient semi-natural woodland and two areas of ancient replanted woodland situated within a 1km radius of the site.

3.3 Vegetation Survey Results

The vegetation within the site is described here in general terms using Phase 1 habitat survey terminology and referring to dominant, characteristic and other noteworthy species in each vegetation type within the survey area. The habitat types on site consist of:

- Improved grassland;
- Hedgerow; and
- Woodland.

3.3.1 Improved Grassland

The dominant habitat on site comprises long species-poor improved grassland which was a former lawn (**Figure 1**). The area has been neglected and become overgrown during 2014. The improved grassland is dominated by cocksfoot *Dactylis glomerata*, Yorkshire fog *Holcus lanatus*, perennial rye-grass *Lolium perenne* and creeping bent *Agrostis stolonifera* with occasional common mouse-ear *Cerastium fontanum*, wild strawberry *Fragaria vesca*, white clover *Trifolium repens*, common ragwort *Senecio jacobaea*, lesser mouse-ear *Cerastium arvense*, field woodrush *Luzula campestris*, common sorrel *Rumex acetosa*, creeping buttercup *Ranunculus repens*, greater bird's-foot-trefoil *Lotus pedunculatus*, smooth sow-thistle *Sonchus oleraceus*, germander speedwell *Veronica chamaedrys*, primrose *Primula vulgaris*, self-heal *Prunella vulgaris*, red fescue *Festuca rubra* and nipplewort *Lapsana communis*.

A small area of mown improved grassland is present where the proposed new access route will pass over (**Figure 2**), this contains similar species as those listed above.



Figure 1: Area of long species-poor improved grassland looking north.



Figure 2: Mown improved grassland on route of proposed new access.

3.3.2 Hedgerow

The western and southern site boundaries are formed of mixed hedgerow containing holly *Ilex aquifolium*, ivy *Hedera helix*, hazel *Corylus avellana*, sycamore *Acer pseudoplatanus*, cherry laurel *Prunus laurocerasus*, yew *Taxus baccata*, forsythia, bramble, hawthorn *Crataegus monogyna*, blackthorn *Prunus spinosa*, snowberry *Symphoricarpos albus* and holm oak *Quercus ilex* (**Figure 3** and **Figure 4**). The northern boundary is formed by a wooden trellis and roofed walkway (**Figures 1** and **Figure 5**).



Figure 3: Western and southern boundary hedgerow looking south.



Figure 4: Proposed access location through boundary hedgerow



Figure 5: Trellis along northern boundary.

3.3.3 Woodland

The eastern site boundary is formed of mixed secondary woodland, dominated by sycamore with an ivy dominated ground layer and a cherry laurel and holly dominated scrub layer (**Figure 6**). Occasional woodland herb species occur along the eastern edge of the site. Species recorded during the survey include nipplewort, enchanter's nightshade *Circaea lutetiana*, hedge woundwort *Stachys sylvatica* and herb Robert *Geranium robertianum*.



Figure 6: Woodland along eastern site boundary.

3.4 Badger Survey Results

No direct evidence of badger was recorded on the site during the survey. Some evidence of mammal foraging was recorded but this is considered to be by fox *Vulpes vulpes*. Hedgehog *Erinaceus europaeus* droppings were found amongst the area of improved grassland. The relatively small size of the site and limited access within a surrounding built up residential area suggests an overall lack of suitable habitat for foraging/resident badger. There is a chance that badgers may use the site and connecting woodland for foraging, however it is unlikely to form a primary resource. Overall, the site is assessed to have **low potential** for foraging/commuting badger and **low potential** for sett construction.

3.5 Bat Survey Results

3.5.1 Bats – Tree Assessment

No trees were recorded within the site boundary. All trees along the edge of the site boundary were assessed for features with potential to support roosting bats. None of the boundary trees were recorded as having any potential features. Therefore, the site was assessed as having **negligible potential** for supporting roosting bats.

3.5.2 Foraging and Commuting Habitat

The landscape surrounding the site is relatively built up but does offer some potential for foraging and commuting bats due to the presence of gardens, small pockets of open grassland and woodland. The site is relatively small in size and is unlikely to form an important foraging resource for bats in the local area. The 71 Stakes Hill Road property is a Grade II listed building and numerous loose and raised roof tiles were observed during the Phase 1 survey, indicating that the property has potential access/egress points for bats and therefore the potential to support roosting bats. This property is not affected by the proposals and the site is unlikely to be of significant importance to any foraging bats potentially emerging from the property. Overall, the site is assessed as having **low potential** for supporting foraging and commuting bats.

3.6 Dormouse Survey Results

The boundary hedgerow is of suitable structure and diversity for supporting dormouse and is linked to adjacent woodland to the east. However, this woodland is species-poor and is sub-optimal habitat for dormouse. The immediate surrounding area comprises built up residential development. The site is isolated by roads and offers no connectivity to any suitable surrounding habitat for dormice in the wider area. Overall, the site and immediate surrounding habitat is considered to have **negligible potential** for supporting dormice.

3.7 Breeding Bird Survey Results

A small number of birds were recorded on site including woodpigeon *Columba palumbus*, magpie *Pica pica*, blackbird *Turdus merula*, goldfinch *Carduelis carduelis*, chaffinch *Fringilla coelebs*, dunnoek *Prunella modularis* and robin *Erithacus rubecula*. The site is likely to support a small range of common breeding species especially within the boundary hedgerow. Overall, the site is considered to have **low potential** for a range of common breeding birds.

3.8 Reptile Survey Results

The onsite area of improved grassland is long, dense and has formed rank clumps throughout which offers suitable terrestrial habitat for supporting feeding and breeding

common species of reptile. Additionally the site is linked with suitable habitat in the form of adjacent woodland to the east. The small area of mown improved grassland adjacent the existing access route is managed and is considered unsuitable. The site is relatively small and is assessed as having **low potential** to support common reptile species.

3.9 Great Crested Newt Survey Results

A review of OS mapping revealed the presence of two waterbodies within a 500m radius of the site and one further waterbody nearby, just outside the 500m radius.

The first waterbody within a 500m radius of the site comprises a connecting drainage ditch which is located approximately 231m east-north-east of the site boundary, just beyond Springwood Avenue, leading to a small pond located approximately 402m east-north-east of the site boundary at its nearest point. This pond is situated within a small area of woodland adjacent residential property and associated gardens and hardstanding.

The second waterbody is located approximately 350m south of the first waterbody and within a 500m radius of the site boundary, just beyond Frenstaple Road in woodland north of Covert Grove. The waterbody comprises a connecting drainage ditch which is located approximately 394m east-south-east from the site boundary, leading to two small connecting ponds located approximately 447m east-south-east from the site boundary at its nearest point.

A third waterbody is located just outside the 500m radius, situated approximately 284m south-south-west of the second waterbody. A connecting drainage ditch is located approximately 456m south-east of the site boundary, leading to a pond located approximately 538m south-east of the site boundary at its nearest point. This pond is situated just south-east of a school campus within an area of woodland.

There are no waterbodies present within the site and therefore the species does not breed on site. The site contains suitable terrestrial habitat in the form of dominant long rank improved grassland. None of the above waterbodies were accessible at the time of the Phase 1 survey. The presence of the species within the site is considered unlikely due to the species having to traverse managed residential properties, gardens, roads, and an area of woodland bounding the site to the east, from the waterbodies to reach the site; however the presence of great crested newt cannot be ruled out entirely. Overall, the site is considered to have **low potential** for great crested newt.

3.10 Terrestrial Invertebrates

The vegetation on the site is limited in its extent and species diversity and is likely to support a low diversity of invertebrate species as a result. The site is considered to offer **negligible potential** for supporting any particularly rare or scarce species or assemblages of invertebrates.

4.0 EVALUATION, IMPACTS AND RECOMMENDATIONS

4.1 Introduction

This section presents the conclusions of the extended Phase 1 ecological assessment. It provides an initial assessment of the likely ecological constraints to the proposed development and detailed recommendations for any further survey work or mitigation measures considered necessary. An outline of protected species legislation relevant to the findings of this report is provided in **Appendix 2**.

4.2 Site Evaluation

The site contains long species-poor grassland, bordered by mixed hedgerow and mixed secondary woodland. The site is of inherently **low ecological value** given the common and widespread nature of these habitats. The boundary hedgerows are suitable for small numbers of breeding birds and the site is likely to support foraging/commuting bats on occasion. The grassland has low potential to support foraging/commuting badger, common species of reptile and great crested newt.

4.3 Potential Impacts of Development

The site proposals entail the construction of a new residential dwelling within the garden of 71 Stakes Hill Road situated just south of the property, a new access route and associated landscaping. The potential ecological impacts are:

- Loss of low quality species-poor improved grassland;
- Increased lighting post-development potentially impacting commuting/foraging bats; and
- Potential impacts on breeding birds through removal of on-site vegetation to create new access route.

4.4 Outline of Recommendations

The following main recommendations are made to minimise the potential impacts:

- Removal of hedgerow to form access to be carried out between September and February, inclusive, to avoid the nesting bird season; and
- Lighting on site should be sensitive to foraging bats.

Table 2: Table of evaluations, impacts and recommendations for protected species at 71 Stakes Hill Road

Ecological Feature	Summary	Potential Impacts of Development	Recommendations
Designated Sites	There are no statutory designated sites of nature conservation situated within a 1km radius of the site. There are five areas of ancient semi-natural woodland and two areas of ancient replanted woodland situated within a 1km radius of the site.	No designated sites are present within a 1km radius of the site and woodland bounding the site to the east will be unaffected by the proposals.	There are no recommendations for designated sites.
Vegetation	The site comprises low ecological value habitats of species-poor improved grassland, mixed hedgerow and mixed secondary woodland. There is some connectivity between the site and its surrounds via the hedgerows and woodland bounding the site to the east, however the surrounding area comprises built up residential development.	Boundary features such as hedgerows and woodland are to be retained. The proposals will see the loss of a relatively small area of species-poor improved grassland within the site and a small area of improved grassland adjacent the existing access route where there is a new proposed access route. The effects of losing these poor quality habitats are considered low to negligible.	Proposed garden landscaping should incorporate native tree and shrub species rather than cultivars. New areas of grass should comprise a native wildflower lawn mix (E.g. Emorsgate EM3 Special General Purpose Meadow Mixture).
Badger	The site is classed as having low potential for supporting resident badger. Foraging and commuting badger are likely to pass through the site from surrounding woodland.	As there is only a low likelihood of badger utilising the site for sett building and, accordingly, there are no anticipated impacts on badger associated with the proposals.	In the unlikely event that a badger becomes trapped in excavations during construction works, a timber ramp should be inserted to allow the animal to escape of its own accord.
Bats	No evidence of bats or bat activity was recorded at the site and no trees with potential bat roosting features were recorded. The site provides areas of habitat suitable for common species of foraging and commuting bats. All bat species are fully protected under the Wildlife and Countryside Act 1981 (as amended); see Appendix 1 for details.	There will be an increase in lighting as a result of the presence of a new property on site.	Any lighting proposed should ideally comprise hooded luminaires. Ideally the bulbs will be LED and at the warmer end of the spectrum (e.g. avoiding blue or white light). LED lights emit much lower levels of UV and therefore have a lower impact on wildlife. It is recommended the new lighting is motion-activated and the lux level should be as low as possible. Guidance on task related lighting levels published by the Chartered Institution of Building Services Engineers (CIBSE) should be consulted.

Ecological Feature	Summary	Potential Impacts of Development	Recommendations
Dormouse	Hedgerows bounding the site offer negligible potential for supporting dormice, lacking in food plant species diversity that would provide food for this species throughout the season. There is some connectivity with adjacent woodland to the east, however this area is species-poor and is not ideal habitat. The site is isolated by surrounding built up residential development.	As boundary vegetation is being retained and dormice are unlikely to be present on or adjacent to the site, impacts to dormice at the site are considered to be negligible.	There are no recommendations for dormice.
Breeding Birds	The site is bounded by hedgerows that would be suitable for supporting common and widespread bird species during the breeding season. The site has low potential overall.	Boundary vegetation is to be retained, however any clearance of vegetation in the creation of a new access route could cause harm to breeding birds if undertaken during the breeding season. All birds, their nests, eggs and young are legally protected; legislation is provided in Appendix 2 .	Vegetation clearance should be undertaken outside the breeding bird season of March to August, inclusive, or if not possible, an ecologist should be present immediately prior to clearance to check vegetation. Active nests should be left with an undisturbed 5-10m buffer until nesting ends.
Reptiles	Grassland habitat at the site offers suitable foraging and breeding opportunities for reptiles. It is deemed as having low potential for this species group overall.	As reptiles are unlikely to be present, anticipated impacts to reptiles associated with the proposals are considered negligible.	There are no recommendations for reptiles.
Great Crested Newt	There are no waterbodies within the site, therefore the species does not breed on site. The grassland at the site offers suitable terrestrial habitat. There are two potentially suitable waterbodies within 500m and one potentially suitable waterbody just outside the 500m radius, which were not accessible at the time of the survey. However, although these waterbodies are isolated from the site by residential development, the presence of the species cannot be ruled out entirely. The site therefore has low potential for supporting this species.	There are no anticipated impacts associated with this species and the proposals.	There are no recommendations for great crested newt.

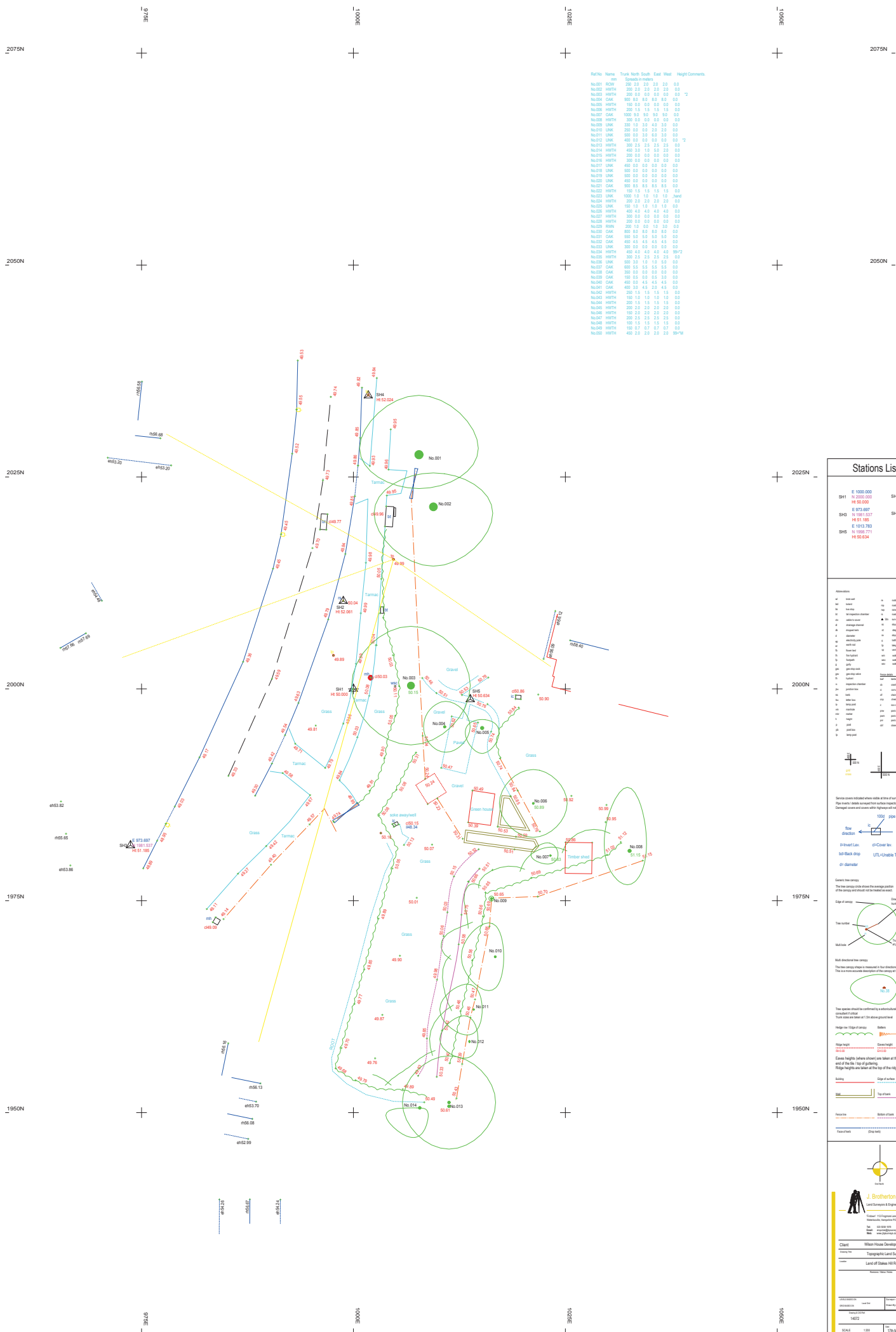
Ecological Feature	Summary	Potential Impacts of Development	Recommendations
Terrestrial Invertebrates	The site supports low value habitats that are limited in extent. It is has negligible potential for supporting rare or notable invertebrate species or assemblages.	There are no impacts anticipated.	There are no specific recommendations for invertebrates, however the vegetation recommendations above would enhance the site significantly for this species group.

4.5 Updating Survey

If works have not commenced by June 2016, or the proposal for the site changes significantly, it is recommended that the extended Phase 1 ecological assessment is updated. This is because many of the species considered during the current survey are highly mobile and the ecology of the site is likely to change over this period.

APPENDIX 1 Drawings

- ADP Architects Ltd 'Location Plan' Job No. 1663, Drawing No. L01 dated July 2013.
- ADP Architects Ltd 'Site Layout' Ref. 1663-01.
- J. Brotherton and Partners 'Topographic Land Survey' Drawing No. 14072 dated 17th May 2014.

[illegible]



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project name/address:

71 Stakes Hill Road
Waterlooville

client:

Wilson House Developments Ltd

drawing title:

Location Plan

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ADP Architects Ltd AR 100010061

job number:

1663

drawing number:

L01

revision:

drawing scale/size:

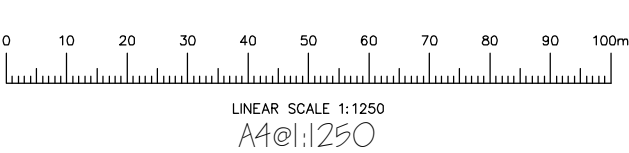
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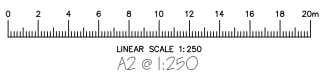
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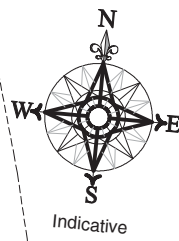
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Site Layout 1:250

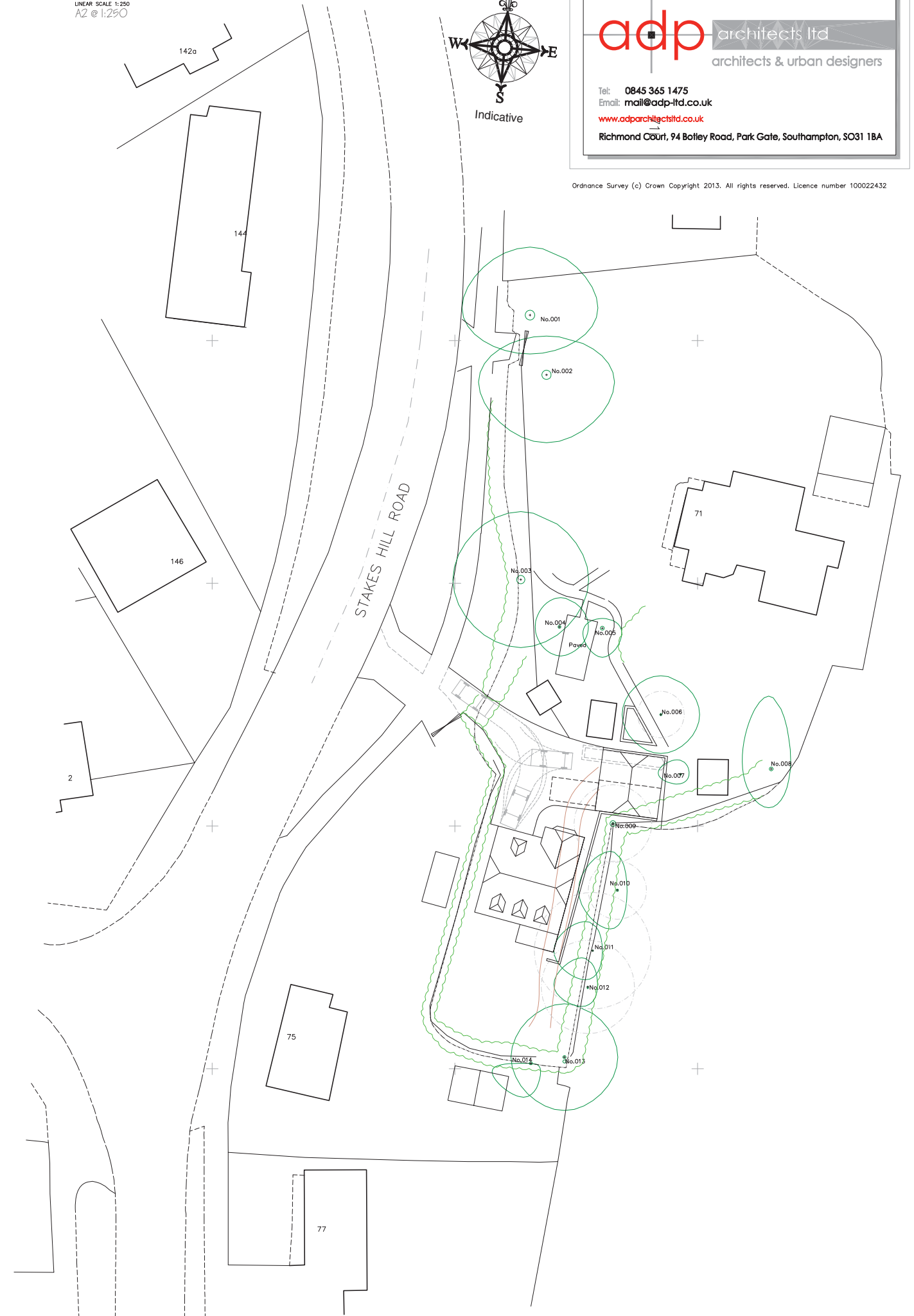




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APPENDIX 2 Protected Species Legislation

European Protected Animals¹⁰ - Bats and Great Crested Newt

In England, all bat species and great crested newt are fully protected under the Wildlife and Countryside Act 1981 through inclusion in Schedule 5. In addition, these species are protected under the Conservation of Habitats and Species Regulations 2010. Taken together, these legislative instruments make it illegal to carry out the following activities:

- Deliberately or recklessly capture or kill any wild animal of a European protected species;
- Deliberately or recklessly disturb any such animal;
- Deliberately or recklessly take or destroy eggs of any such wild animal;
- Damage or destroy a breeding site or resting place of such a wild animal; and
- Keep, transport, sell or exchange, or offer for sale or exchange, any live or dead wild animal of a European protected species, or any part of, or anything derived from such a wild animal.

Any activity that would result in a contravention of the above legislation would require a licence to avoid committing an offence. Natural England has powers to grant a licence for the following purposes:

- 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; or
- Preventing the spread of disease; or
- Preventing serious damage to livestock, foodstuffs for livestock, crops, vegetables, fruit, growing timber or any other form of property or to fisheries.

The Conservation of Habitats and Species Regulations contain three "derogation tests" which must be applied by Natural England when deciding whether to grant a licence to a person carrying out an activity which would harm an European protected species. For development activities this licence is obtained after Planning Permission has been obtained. The three tests are that:

¹⁰ Summarised from www.defra.gov.uk

- The activity to be licensed must be for imperative reasons of overriding public interest or for public health and safety;
- There must be no satisfactory alternative; and
- Favourable conservation status of the species must be maintained.

A recent court judgment¹¹ makes it clear that, notwithstanding the licensing regime, the Local Planning Authority must also address its mind to these three tests when deciding whether to grant planning permission for a development which could harm a European protected species. A Local Planning Authority failing to do so would be in breach of Regulation 3(4) of the Conservation (Natural Habitats, &c.) Regulations 1994 (revised in 2010 to become the Conservation of Habitats and Species Regulations) which requires all public bodies to have regard to the requirements of the Habitats Directive in the exercise of their functions.

In order to determine whether an activity requires a licence, Natural England advises that the guidance of a consultant ecologist is sought. However, Natural England offer the following advice as a guide:

- A licence is needed if the consultant ecologist, on the basis of survey information and specialist knowledge of the species concerned, considers that on balance the proposed activity is reasonably likely to result in an offence under regulation 39; or
- If the consultant ecologist, on the basis of survey information and specialist knowledge of the species concerned, considers that on balance the proposed activity is reasonably unlikely to result in an offence under regulation 39 then no licence is required. However, in these circumstances Natural England would urge that reasonable precautions be taken to minimise the effect on European protected species should they be found during the course of the activity. If they are found then work should cease and an application be made to the Wildlife Licensing Unit at Natural England, Bristol.

Common Reptiles

All common reptile species (grass snakes, adders, common lizards and slow worms) native to Britain are protected by the Wildlife & Countryside Act, 1981 (as amended). This legislation makes it illegal to intentionally kill or injure a common reptile. As a result, reptiles must be

¹¹ Judgment handed down by His Honour Judge Waksman QC sitting as a judge of the High Court at the start of June 2009 in the case of *R (on the application of Simon Woolley) v Cheshire East Borough Council*. The judgment clarified for the first time the legal duty of a Local Planning Authority when determining a planning application for a development which may have an impact on European Protected Species ("EPS"), such as bats, great crested newts, dormice or otters.

removed from areas of development and relocated onto suitable release sites before any site works can commence.

Wild Birds¹²

The Wildlife & Countryside Act 1981 (as amended) is domestic legislation for Great Britain that repeals existing wildlife legislation such as:

- Protection of Birds Acts 1954 to 1967; and
- Conservation of Wild Creatures and Wild Plants Act 1975.

The Act covers the provisions made in these previous acts and provides additional provision for species and countryside protection. The Act is the primary legislation in Great Britain for the protection of flora, fauna and the countryside. The Act includes the UK's domestic implementation of the species protection of the European Directive on the Conservation of Wild Birds (79/409).

Under the Wildlife and Countryside Act 1981 all birds, their nests and eggs are protected by law and it is thus an offence, with certain exceptions to intentionally:

- Kill, injure or take any wild bird.
- Take, damage or destroy the nest of any wild bird while it is in use or being built.
- Take or destroy the egg of any wild bird.
- Have in one's possession or control any wild bird (dead or alive) or any part of a wild bird which has been taken in contravention of the Act or the Protection of Birds Act 1954.
- Have in one's possession or control any egg or part of an egg which has been taken in contravention to the Act. This includes items taken or killed before the passing of the Act.
- Have in one's possession or control any live bird of prey of any species in the world (with the exception of vultures and condors) unless it is registered and ringed in accordance with the Secretary of State's regulations.

¹² www.naturenet.net

- Have in one's possession or control any bird of a species occurring on Schedule 4 of the Act unless registered (and in some cases ringed) in accordance with the Secretary of State's regulations.
- Disturb any wild bird listed on Schedule 1 while it is nest building, or at a nest containing eggs or young, or disturb the dependent young of such a bird.

Status of Wild Birds

The leading governmental and non-governmental conservation organisations in the UK have reviewed the population status of the birds that are regularly found in the UK. A total of 247 regularly breeding or wintering species were assessed and each placed onto one of three lists - Red, Amber or Green. Forty species are Red-listed, 121 are Amber-listed and 86 are Green-listed. Seven quantitative criteria were used to assess the population status of each species and place it onto the Red, Amber or Green List. These criteria are listed below. The review excluded species that are not native to the UK and those that occur irregularly as vagrants or scarce migrants.

Global Conservation Status - Species assessed as Globally Threatened using IUCN11 criteria were placed on the Red List.

Recent Decline - Species whose breeding or non-breeding population declined, or range contracted, rapidly (by more than 50%) or moderately (by between 25 and 49%) over the last 25 years were placed on the Red and Amber Lists respectively.

Historical Decline - Species whose populations declined severely between 1800 and 1995 were placed on the Red List, except for those that have recovered substantially (more than doubled) in the last 25 years, which were Amber Listed. In earlier assessments, all species showing a serious historical decline were Red Listed, but in this assessment the success of recent conservation action has been recognised by moving recovering species to the Amber List.

European Conservation Status - Species whose population status is unfavourable in Europe (but which are not Globally Threatened) were placed on the Amber List.

Rare Breeders - Species with a mean population size of 1-300 pairs breeding annually over the last five years were placed on the Amber List. If a full census was carried out in a single year, the result of this was used instead of a five-year mean.

Localised Species - Species for which 50% or more of the breeding or non-breeding population occurs at 10 or few sites were placed on the Amber List. This criterion was used because a species whose population is confined to a few sites faces a greater threat from

chance events than one whose population is widespread. The sites considered were either Important Bird Areas (identified by BirdLife International) or Special Protection Areas (designated under the European Union's Directive on the Conservation of Wild Birds).

International Importance - Species with 20% or more of their European population breeding in the UK were placed on the Amber List, as were non-breeding wildfowl with 20% or more of their northwest European population occurring in the UK and non-breeding waders with 20% or more of their East Atlantic Flyway population occurring in the UK. This criterion is different from the others as it is a measure of the UK's responsibility for each species rather than the extent to which species are threatened.

- Red List species are those that are Globally Threatened according to IUCN criteria; those whose population or range has declined rapidly in recent years; and those that have declined historically and not shown a substantial recent recovery.
- Amber List species are those with an unfavourable conservation status in Europe, those whose population or range has declined moderately in recent years; those whose population has declined historically but made a substantial recent recovery; rare breeders; and those with internationally important or localised populations.
- Species that fulfil none of the criteria are Green-listed.