

STRUTT AND PARKER LLP

Dappers Lane, Angmering, West Sussex

– Preliminary Ecological Appraisal

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Signed:

Position: Principal

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Landscape Architecture



Environmental Design



Landscape Planning

Lizard Landscape Design

Lizard Landscape Design



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SUMMARY

Strutt and Parker LLP has commissioned Lizard Landscape Design to undertake an ecological appraisal of the land proposed for development to the north-east of the junction of Dappers Lane and Water Lane, Angmering, West Sussex (*Grid Reference: TQ073047 – hereafter referred to as 'the site'*). A preliminary ecological appraisal (PEA) was undertaken of the site on 22nd July 2013 to appraise the existing ecological resource within the site and the surrounding area. The PEA was comprised of a baseline survey conforming broadly to the JNCC Ecology Phase 1 Habitat Survey protocol to identify the existing habitats. In addition a protected species assessment was undertaken to identify potential for European and nationally protected species within and adjacent to the site.

The preliminary ecological appraisal has identified habitats within the zone affected by the proposed development of dense scrub and tall ruderal vegetation; species-poor semi-improved grassland; residential buildings; intact native hedgerows; and scattered trees. The area is sub-divided into 3 no. main compartments: dense scrub and tall ruderal vegetation (*south*); species-poor semi-improved grassland (*east*); and residential (*west*). The area of dense scrub and tall ruderal is considered to represent 'moderate' ecological value with 'high' potential for the presence of protected species of reptile such as slow worm. The remaining 2 no. parcels of land are considered to exhibit 'low' ecological potential with no ecological constraints other than the potential for nesting birds in peripheral areas. Should significant areas of dense scrub and / or trees need to be removed as part of the development proposals it is recommended to conduct this outside of the bird breeding season.

There is a sizeable amount of habitat within the development zone that may support populations of widespread reptile such as slow worm (*Anguis fragilis*). This is supplied by the approximate 0.3 hectare area of dense scrub and tall ruderal vegetation that occupies the southern parcel of land. There is 1 no. oak and 1 no. ash tree to the southern site boundary that are considered to offer 'moderate' bat roost potential however the current understanding is that these trees would remain post-development. Should the proposals include the removal of these trees then it is advised that a bat emergence / activity survey of suitable survey effort is conducted during the bat active season 2013 (*present-September*).

1.0 INTRODUCTION

- 1.1 Strutt and Parker LLP has commissioned Lizard Landscape Design to undertake an ecological appraisal of the land proposed for development to the north-east of the junction of Dappers Lane and Water Lane, Angmering, West Sussex (*Grid Reference: TQ073047 – hereafter referred to as 'the site'*).
- 1.2 A preliminary ecological appraisal (*PEA*) was undertaken of the site on 22nd July 2013 to appraise the existing ecological resource within the site and the surrounding area. The PEA was comprised of a baseline survey conforming broadly to the JNCC Ecology Phase 1 Habitat Survey protocol to identify the existing habitats. In addition a protected species assessment was undertaken to identify potential for European and nationally protected species within and adjacent to the site.
- 1.3 The field survey data and analysis contained within this report was undertaken and prepared by Mr Mark Vivian (*MCIEEM MSc BSc; Senior Ecologist; Lizard Landscape Design; Natural England Bat Licence Holder for Bats, GCN and Dormice*).

Site Information

- 1.4 The development site is located directly to the north east of the junction of Dappers Lane and Waters Lane, Angmering within the grounds of Broadlees residential property. The plot is 14.00 metres above sea-level and measures approximately 1.27 hectares of which the vast majority would be redeveloped. The land is separated into 3 no. distinct compartments: scrub / ruderal (*south*); pasture grassland (*east*); and residential usage (*west*).
- 1.5 There is a dense strip of impenetrable dense scrub that lines the southern boundary that extends into a narrow strip of mature trees with an ivy ground layer along the western boundary. The northern boundary is marked by a fence line and the eastern boundary is demarked by a small fence and a narrow strip of rough grassland that connects to the southern parcel of scrub.

- 1.6 The site is part of a series of grassland systems running on a continuous north-south trajectory from the A27 in the north extending south for more than 1.00 kilometre. Natural England has defined this area as undetermined grassland as NE surveyors have not assessed this area at this present time. It is not believed that the pasture grassland on site comprises a priority habitat of sufficient value to obstruct the development proposals. The area has been designated as species-poor semi-improved grassland during this preliminary ecological appraisal survey.

Surrounding Landscape

- 1.7 The landscape to the north-west, west, and south-west of the site is dominated by the suburban area of Angmering comprised the residential buildings, access routes, and open garden spaces. The stretch of undetermined grassland that runs north from the eastern sector of the site appears to be dominated by grassland in agricultural production with a motor racing circuit to the north east section just south of the A27. 2 no. parcels of BAP Priority deciduous woodland are found on either side of this habitat to the immediate south of the A27. The belt of undetermined grassland extends south to encompass the wider landscape to the south and south east of the site in the surrounding arable landscape.

Development Proposals

- 1.8 The vast majority of the site would be redeveloped into a residential care home facility. The site would be accessed from Water Lane a central nursing home building edged with 32 no. individual residential units would be constructed.

2.0 SCOPE OF THE SURVEY

- 2.1 The aim of the preliminary ecological appraisal has been;
- *To identify and display the main habitat types and plant communities;*
 - *To provide a species list for the major habitats;*
 - *To identify habitats with potential for protected species; and;*
 - *To provide recommendations for surveys of protected species and / or ecological enhancement / compensation.*

- 2.2 This report establishes the potential ecological resource within the site and outlines where any ecological constraints may occur.

3.0 METHODOLOGY

- 3.1 A preliminary ecological appraisal was undertaken on the 22nd July 2013 and the site subjected to an Ecology Phase 1 Habitat Survey using guidelines set out in the '*Handbook for Phase 1 Habitat Survey – a Technique for Environmental Audit*' (JNCC, 2003). This has resulted in a Site Habitat Plan (Figure No. 1) and Target Notes in Table No. 1.0.
- 3.2 Habitats within the site were classified and the presence, or potential presence, of certain protected and / or notable species of flora and fauna were identified. A summary description of the habitat within the site following the Ecology Phase 1 Habitat Survey methodology is presented in Section 4.0.
- 3.3 Due to the field survey consisting of only one site visit certain species, particularly some of the flowering plants, may not have been visible or may have been otherwise inconspicuous at the time of survey and hence overlooked. These are accepted constraints associated with the standard Ecology Phase 1 Habitat Survey methodology.
- 3.4 Habitats within and immediately adjacent to the site were assessed for their potential for uncommon and protected fauna including mammals, birds, reptiles, and amphibians. This involved identifying features, which may be used by protected species, potential foraging areas and other signs of use. Stones, dead wood, and rubble were turned over and any dug holes studied for recent activity by mammals. Water bodies were recorded wherever possible within 500.0 metres of the proposed development.
- 3.5 The results are summarised and accompanied in large part by photographic evidence contained in *Appendix No.1 – Site Photographs*. Recommendations for further investigation and survey are made in the following report.

4.0 RESULTS

4.1 Desk Study – Background Information

Designated Sites, Species and Habitats

- 4.1.1 The following section outlines the ecological context of the development site, describing any designated nature conservation sites in the vicinity of the development site. The following designated sites and habitats are not necessarily representative of the existing site's ecology, but are indicative of the ecological context of the surrounding area; a factor that may be important when assessing the presence / absence potential of certain species groups.

Statutory Protected Sites

- 4.1.2 The South Downs National Park is located 370.00 metres east of the site. The South Downs are the newest National Park having been officially designated in April 2010. The area designated measures approximately 1600 km² and has been classified because of the uniquely biodiverse and historical landscape that it represents. The purpose of National Parks is to conserve and enhance natural beauty, wildlife, and cultural heritage in addition to promoting understanding and enjoyment of the special qualities of National Parks by the public. Conservation takes precedence wherever conflict arises. No other statutory protected sites have been identified within 2.0 kilometres of the site. The scale and scope of the development would not impinge on any of the defining features of the National Park. There are no other statutory protected sites within 5.00 kilometres of the development site.

Sussex Biodiversity Action Plan (BAP) – Species

- 4.1.3 Species Action Plans (SAPs) that are relevant within Sussex include those for reptiles such as common lizard (*Zootoca vivipara*); slow worm (*Anguis fragilis*); grass snake (*Natrix natrix*); and adder (*Viperus berus*). There is 1 no. oak and 1 no. ash tree to the southern site boundary that are considered to offer 'moderate' bat roost potential however the current proposal is that these would remain post-development therefore the Sussex BAP priorities for bats would not be compromised within this development.

- 4.1.4 Adders, grass snakes, common lizards, and slow worms are protected against killing, injury or sale under *The Wildlife and Countryside Act 1981*. Developments that could predictably kill or injure reptiles could result in an offence. Furthermore these species are targets of *UK and Local Biodiversity Action Plans* and listed as *Species of Principle Importance* under *Section 41 of the Natural Environment and Rural Communities Act 2006*. This obligates local authorities to have regard to the purpose of conserving biodiversity with particular emphasis on targeted species.
- 4.1.5 In the UK slow worm is most common in the south and east of England where it is found in a range of open habitats. Grass snake is locally common in the south and east of England; it is associated with freshwater habitats but sites with adjacent cover are favored. Adder is locally present in the south east and national populations are believed to be declining; it can be found in edge habitats or more open habitats such as chalk grassland or dry heathland. Common lizard is locally distributed across the south and east of England; it can be found in a variety of habitats
- 4.1.6 It is believed that the development proposals would have very limited potential to affect the Sussex-wide BAPs for these species however all British reptiles are protected against intentional / reckless killing / injury within *The Wildlife and Countryside Act 1981 (as amended)*. The need therefore to evaluate the likely impacts upon these species is therefore prudent.

Sussex Biodiversity Action Plan (BAP) – Habitats

- 4.1.7 There is a moderate amount of BAP Priority deciduous woodland and a small amount of ancient woodland within 2.00 kilometres of the site. To the south of the A27 there is an unnamed patch of *BAP Priority Deciduous Woodland* that measures 32.50 hectares located 615.00 metres north of the site and a patch of *Ancient Woodland, Groom's Copse* that measures 7.50 hectares and is located approximately 515.00 metres north-east of the site.

- 4.1.8 To the north of the A27 there is *Cottage Rough* which is designated as *Deciduous Woodland BAP Priority Habitat* measuring 3.50 hectares and located approximately 925.00 metres north of the site. In addition, there is *Fox Rough Deciduous Woodland (BAP Priority)* which measures 6.18 hectares which is located 1145.00 metres north and *Hammerpot Copse / Butler's Copse* which is *Ancient Woodland (replanted)* which measures 29.50 hectares and is around 1.50 kilometres from the site area. The development would not remove any deciduous woodland and therefore would not impact upon *Local Biodiversity Action Plan* targets.

4.2 Field Study

- 4.2.1 The following habitats and features were recorded within the development site and the extended survey area. The general site character has been described along with a brief description of the habitat's physical characteristics. These are shown on the Site Habitat Plan in Figure No. 1; Target Notes are listed in Table No. 1.

- 4.2.2 Habitats within the development site area include:

- *Dense Scrub and Tall Ruderal Vegetation;*
- *Species-Poor Semi-Improved Grassland;*
- *Intact Native Species-Poor Hedgerow; and;*
- *Scattered Trees;*

Site Description (Refer to Appendix No. 1 – Site Photographs)

- 4.2.3 The site area is comprised of 3 no. more or less discrete compartments: dense scrub and tall ruderal vegetation (*south*); species-poor semi-improved grassland (*east*); and residential (*west*). The dense scrub vegetation has been recently cleared although a significant amount of regeneration of bramble and common nettle has occurred in the interim. This site sector is somewhat uniform and measures approximately 0.30 hectares.

- 4.2.4 The arisings from the clearance operation has left a dense covering at ground layer that may act as cover for protected species such as reptiles. This area is bordered to the south by a strip of dense scrub that extends eastwards into thin linear strips of rough grassland and westward to a linear strip of trees with a dense cover of herbaceous ivy at the ground layer. This will improve the potential for widespread reptiles such as slow worm and common lizard. Prudence would suggest that this issue is investigated further to ensure full compliance with prevailing protected species legislation.
- 4.2.5 There are 2 no. mature trees located at TN08 and TN09; Figure No. 1 – Site Habitat Plan that exhibit 'moderate' bat roost potential however it is believed that these are to be retained within the post-development and landscape scheme.
- 4.2.6 There is a patch of semi-improved species-poor pasture grassland that measures approximately 0.50 hectares found in the western sector of the site. This had recently been grazed down to near enough ground level by sheep in an attempt to control the proliferation of ragwort within the sward. This segment of the site has been categorised by Natural England (NE) as *BAP Priority Habitat Undetermined Grassland*. No NE representative has as yet fully categorised this area along with multiple other local areas, however the information gleaned during the site visit suggests the area is of 'low' ecological value.
- 4.2.7 The grassland had been grazed very short and appeared to be heavily dominated by grasses with a moderate contribution from forb species. It is believed to be best described as species-poor semi-improved grassland as during the survey the area did not appear to be dominated by perennial ryegrass (*Lolium perenne*) however non-grass species were not perceived to be abundant. This area is bordered by thin linear strips of tall ruderal vegetation, rough grassland, and intact native hedgerow with features such as compost heaps and brash piles that augment the potential for reptiles such as slow worm (Refer to Photographs No. 9 & 10; Appendix No. 1 – Site Photographs).

- 4.2.8 The residential area measures approximately 0.40 hectares and is comprised of habitats very typical of a well-maintained suburban property. There is a single residential dwelling with an adjacent garden containing a lawn and ornamental planting and a single subsidiary out-building containing an office and a garage used for storage.
- 4.2.9 The residential property is well maintained with tightly fitting roof tiles and intact mortaring around the edges of the roof that has allowed no gaps suitable for crevice-dwelling bats. The roof of the subsidiary out-building is comprised of asbestos with no lining and very few places that would be suitable for roosting bats such as pipistrelles. The residential area in general is considered to exhibit 'low' ecological value.
- 4.2.10 There is a medium sized pond to the immediate south of Water Lane approximately 30.00 metres from the site area. The pond is dissected from the site area by the adjacent highway hard standing. This is believed to be sub-optimal for protected species of amphibian such as GCN as the pond is regularly frequented by geese and other wildfowl and there is very little emergent vegetation within the pond. Geese and other wildfowl input high levels of extraneous nutrients into the freshwater system which often leads to eutrophication and under serious conditions anoxia which has significant deleterious ramifications for the food web. Furthermore whilst not mutually exclusive the water was noted to be highly turbid which can often inhibit the growth of emergent vegetation which is used as egg laying sites by GCN.
- 4.2.11 The pond is adjacent to Arun Angling Centre which may suggest that the area is used for sport fishing. This type of recreational activity and the management practices that are put in place such as carp stocking are also factors that may contribute to the sub-optimality of the water body; the terrestrial environment immediately adjacent to the water's edge appeared to be amenable for angling; such as very open and clear of vegetation. The potential ecological constraint of GCN within these development proposals is considered to be 'low'.

5.0 EVALUATION

- 5.1 The preliminary ecological appraisal has identified habitats within the zone affected by the proposed development of dense scrub and tall ruderal vegetation; species-poor semi-improved grassland; residential properties; intact native hedgerows; and scattered trees. The area is sub-divided into 3 no. main compartments: dense scrub and tall ruderal vegetation (*south*); species-poor semi-improved grassland (*east*); and residential (*west*). The area of dense scrub and tall ruderal vegetation is considered to represent 'moderate' ecological value with 'high' potential for the presence of protected species of reptile such as slow worm. The remaining 2 no. parcels of land are considered to exhibit 'low' ecological potential with no ecological constraints other than the potential for nesting birds in peripheral areas.
- 5.2 There is a sizeable amount of habitat within the development zone that may support populations of widespread reptile such as slow worm (*Anguis fragilis*). This is supplied by the approximate 0.3 hectare area of dense scrub and tall ruderal vegetation that occupies the southern parcel of land. The area has recently been cleared of dense scrub dominated by bramble. The arisings have left a dense matrix at the ground layer that could be exploited as refuge and foraging habitat by species of reptile such as slow worm. It is also feasible for the area to have supported a population of reptiles previous to the clearance as despite not being optimal areas of dense scrub are considered suitable for many reptiles especially when part of a mosaic of habitats such as grassland.
- 5.3 Furthermore the linear strips of dense herbaceous vegetation that comprise the western, southern, and eastern site peripheries are also considered to offer refuge and foraging habitat for widespread reptiles. It is also salient that these areas may provide habitat connectivity for this species group to the wider landscape and contain features such as brash piles and compost heaps that increase the suitability of the habitat.

- 5.4 It is therefore quite possible that the area supports a population of protected species of reptile. British reptiles are protected against reckless killing and / or injury (*amongst other things*) within *The Wildlife and Countryside Act 1981 (as amended)*. The development proposals put forward could predictably impinge upon this legislation and it is therefore recommended that the affected areas are subject to an artificial refugia survey during the active season of 2013 (*September / October*).
- 5.5 There is a reasonably large pond adjacent to the south of the property that under different circumstances may be considered to offer potential for great crested newt (GCN). The pond in question is not however believed to contain attributes sufficient to warrant the cost of further investigation. The pond is regularly frequented by geese and other wildfowl which is usually correlated with high nutrient load. Eutrophication and anoxia can ensue following significant nutrient loading however this was not believed to have occurred in this instance.
- 5.6 The banks and littoral areas of the pond are in fact very sparse in emergent and submerged vegetation which may be a result of the highly turbid water or the management regime of the land managers. GCN require egg-laying sites which very often include the leaves of submerged / emergent vegetation. The lack of this important feature would potentially impact upon the reproductive success rate of any relic population and would push any potential population closer towards local extinction. Metapopulation dynamics; the ratio of extinction to colonisation are not suggested to be high within the locality as the landscape to the west is high fragmented by the urban landscape of Angmering. In addition the plot is suggested to be isolated from any potential source populations to the east as the landscape is intensively agricultural.

- 5.7 It is therefore thought to be unlikely that great crested newt breed within this pond. The terrestrial landscape is also thought to be somewhat suboptimal as the pond is situated within a small patch of deciduous woodland that is very isolated within the local landscape and dissected from the site area by the adjacent highway hard standing. The habitat that has been suggested to offer high potential for reptiles may potentially extend the terrestrial habitat for amphibians however if conducted at the appropriate time of year and locations the reptile survey would also detect amphibians within their terrestrial habitat. It is therefore not thought necessary to conducted specific survey for protected species of amphibian as part of these development proposals.
- 5.8 There is 1 no. oak and 1 no. ash tree to the southern site boundary that are considered to offer 'moderate' bat roost potential however the current understanding is that these trees would remain post-development therefore the Sussex BAP priorities for bats are not compromised by this development (*Refer to TN08 & TN09; Figure No. 1 – Site Habitat Plan and Table No. 1 – Target Notes*). Should the proposals include the removal of these trees then it is advised that a bat emergence / activity survey of suitable survey effort is conducted during the bat active season 2014 (*May - August*).
- 5.9 There is also plenty of bird nesting habitat to be found around the peripheral areas of the site. 1 no. confirmed bird nest was located at *TN10 – Figure No. 1*; however there are numerous other suitable areas that could be exploited by nesting birds. The current understanding is that the vast majority of these areas including the boundary hedgerows and trees would be retained. Should significant areas of the bordering site habitat need to be removed as part of these development proposals it is recommended to avoid the bird breeding season (*March – August each year*).

6.0 PROTECTED SPECIES: CONCLUSIONS AND RECOMMENDATIONS

6.1 Reptiles

- 6.1.1 Potential reptile habitat with high levels of connectivity has been identified on site. The development proposals would remove a notable patch of potential reptile habitat. An avoidance / mitigation strategy should be devised based upon up to date survey data collected during the active season of 2013 (September / October) prior to the commencement of development.

Reptiles – Recommendations

- 6.1.2 A reptile presence / absence survey should be undertaken during September / October 2013. This would involve the deployment of coroline, roofing felt, and fabric refugia in the areas believed to be appropriate optimal reptile habitat. Due to the size of the potential habitat affected; 7 no. reptile survey visits are believed to be proportionate.

7.0 ECOLOGICAL ENHANCEMENTS

- 7.1 The design of the proposed Dappers Lane, Angmering Care Home facility should consider enhancements for the benefit of wildlife in line with the NPPF, Local Planning Policy, and the BREEAM Land Use and Ecology assessments. Recommendations for ecological enhancements that could be considered as part of development proposals include;
- *The implementation of bespoke 'Hedgehog Houses' to the site boundaries of the development area would enhance and compensate for the potential loss of shelter for Hedgehogs from existing areas of scrub vegetation;*
 - *The use of Native Tree and Shrub species within the soft landscape proposals to provide species diversity within the scheme proposals; Suitable species may include Dog Wood – Cornus alba; Field Maple – Acer campestre; Guelder-Rose - Viburnum opulus; Hazel – Corylus avellana; Pendunculate Oak - Quercus robur; Silver Birch - Betula pendula; and Grey Willow – Salix cinerea;*

- *The creation of a mosaic of habitats such as Scattered Trees, Dense Scrub, and Wildflower Grasslands within the scheme proposals to enhance site habitats for protected species of Reptile; with consideration given to the location of relevant habitats to ensure habitat connectivity between habitats within the site and the surrounding wider landscape;*
- *Seeding with Native Wildflower and Grassland species of remaining Poor Semi-Improved Grassland areas to create Wildflower Meadows to the site boundaries;*
- *Provision of Nesting Boxes for a variety of Bird species. These include boxes for House Sparrows which can be attached to the proposed buildings / dwellings or within existing trees after completion of the works;*
- *Provision of Bat Boxes for both hibernation and maternity Bat roosting within the existing Scattered Trees within the site area.*

8.0 REFERENCES

JNCC (2003) Handbook for Phase 1 Habitat Survey – a Technique for Environmental Audit'. JNCC;

Mitchell-Jones and McLeish (2004) Bat Workers Manual – 3rd Edition. JNCC;

Streeeter D (2010) The Most Complete Guide to the Flowers of Britain and Ireland. Harper Collins, London;

www.magic.gov.uk;

(Sussex 2012) information accessed at:

<http://www.biodiversitysussex.org/species/terrestrial-mammals>.

Table No. 1 - Target Notes (TN) for Ecology Phase 1 Habitat Survey and Protected Species Assessment

TN	Description	Protected Species	Potential	Photo No.
TN 01	Potential reptile habitat in southern parcel of recently cleared dense scrub and tall ruderal.	Reptiles	'High'	Nos. 01-06
TN 02	Potential reptile habitat in southern parcel of recently cleared dense scrub and tall ruderal.	Reptiles	'High'	Nos. 01-06
TN 03	Potential reptile habitat in southern parcel of recently cleared dense scrub and tall ruderal.	Reptiles	'High'	Nos. 01-06
TN 04	Species-poor, semi-improved grassland that has been grazed short by sheep to control the proliferation of ragwort.	BAP Priority Habitat	'Low'	Nos. 07-12
TN 05	The main building on site has tightly fitted roof tiles and very neatly mortared edges to the roof. There were no places observed that a bat could roost therein.	Bat	'Negligible'	Nos. 15-17
TN 06	The subsidiary building on site has an asbestos roof with no lining. It is thought very unlikely that bats will be roosting within this structure.	Bat	'Negligible'	Nos. 18 & 19
TN 07	Short garden turf typical of residential, suburban premises. Well maintained with very little potential for protected species and biodiversity in general.	N/A	N/A	Nos. 13 & 14
TN 08	Mature tree with dense covering of ivy along the southern boundary. It is believed that this feature will be retained however if plans are to remove this tree that a proportionate bat survey shall need to be devised.	Bat	'Moderate'	Nos. 20
TN 09	See above.	Bat	'Moderate'	N/A
TN 10	Bird nest observed within small thicket of trees.	Birds	'Confirmed'	No. 4

Appendix No. 1 – Preliminary Ecological Appraisal – Site Photographs

APPENDIX NO. 1 - SITE PHOTOGRAPHS



Photograph No. 01 - Area to the south of the site that has been recently cleared. Common nettle and bramble has regenerated. The habitat is suggested to be suitable for reptile species such as slow worm and common lizard.



Photograph No. 02 - Close up on the existing habitat typical within southern patch of potential reptile habitat. The matrix of dead brambles may still provide any resident reptiles with refuge and sustenance.

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Photograph No. 3 - An example of dead wood found within the southern parcel of potential reptile habitat. This feature may augment the potential invertebrate resource on site.



Photograph No. 4 - Bird nest found in the existing tree lining the western site boundary. Care must be taken not to damage or destroy any active bird nests during the site clearance works.

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Photograph No. 5 - Dense ivy growth on the ground layer around the existing trees lining the western site boundary. This may create habitat for reptiles such as slow worm and common lizard.



Photograph No. 6 - Inpenetrable dense scrub lining the southern site boundary. A proportion of this area would be retained within the post development landscape scheme.

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Photograph No. 7 - Species-poor semi-improved grassland that occupies the eastern sector of land on the site. This area is dominated by grasses with a relatively low contribution to biomass from forb species.



Photograph No. 8 - Eastern block of semi-improved grassland with bordering vegetation of scrub, tall ruderal, and hedgerows to the south. The border vegetation connects to the dense scrub to the south of the site.

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Photograph No. 9 - Compost heap found in the strip of habitat to the south of semi-improved grassland. This will augment the potential for reptiles such as slow worm and grass snake.



Photograph No. 10 - Brash heap found in the strip of habitat to the south of semi-improved grassland. This will augment the potential for reptiles such as slow worm and grass snake.

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APPENDIX NO. 1 - SITE PHOTOGRAPHS



Photograph No. 11 - Rough grassland to the east of the semi-improved grassland that connects to other areas on site that exhibit potential for reptiles such as slow worm.



Photograph No. 12 - Hedgerow to the north of semi-improved grassland that has potential for nesting birds and moderate connective properties for protected species such as reptiles.

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APPENDIX NO. 1 - SITE PHOTOGRAPHS



Photograph No. 13 - Garden lawn area of the residential compartment on site of 'low' ecological value.



Photograph No. 14 - Garden lawn area of the residential compartment on site. This area is directly west of the semi-improved grassland. This area has 'low' ecological value.

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Photograph No. 15 - Mortared edges of the existing property roofline are intact. The photograph is typical of the general state of the main residential dwelling on site with '*negligible*' bat roost potential.



Photograph No. 16 - Eaves of the property roof are intact. The photograph is typical of the general state of the main residential dwelling on site with '*negligible*' bat roost potential.

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Photograph No. 17 - Roof tiles are tight-fitting with no visible opportunities for bat roosting. The photograph is typical of the general state of the main residential property on site with '*negligible*' bat roost potential.



Photograph No. 18 - Subsidiary out-building on site - asbestos roof with no lining and very little opportunity for bat roosting with '*negligible*' bat roost opportunity and potential.

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APPENDIX NO. 1 - SITE PHOTOGRAPHS



Photograph No. 19 - Roof section of the subsidiary out-building on site with '*negligible*' bat roost potential.



Photograph No. 20 - One of the two mature trees along the southern site boundary that exhibits '*moderate*' bat roost potential. This tree would need to be surveyed for bats should the existing tree require removal.

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DAPPERS LANE, ANGMERING, WEST SUSSEX
PRELIMINARY ECOLOGICAL APPRAISAL

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