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WOODCROFT FARM, WECOCK

Ecological Assessment Report

17/05/2013

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Woodcroft Farm, Wecock

Ecological Assessment Report

17/05/2013

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1 Executive Summary

- 1.1.1 Woodcroft Farm (hereafter known as the 'Site') is located in an agricultural landscape, adjacent to the residential area of Wecock in the Borough of Havant, Hampshire. It comprises six fields of close-grazed semi-improved grassland, separated by mature hedges; an occupied house and associated gardens; and an area of hard standing with a number of stable blocks and sheds. There is also a small area behind the sheds filled with old cars and other disused vehicles. A surfaced lane runs along the southern boundary of the Site, providing access to the buildings, whilst in the southern corner of the north western field there is a small sand riding arena. The Site boundary is shown on Figure 1.
- 1.1.2 The Site is allocated as a strategic site with Havant Borough Council's Core Strategy (HBC, 2011) for a 340 unit mixed use development. It is also listed within the Strategic Housing Land Availability Assessment (HBC, 2012) as an allocated strategic site for 320 dwellings. Grainger plc's proposals for the Site comprise development of 293 dwellings and include retention of the locally listed farmhouse, with the remaining outbuildings to be demolished. A replacement playing field for the school located immediately to the south will be created within the most easterly field; and a bridleway will be diverted, likely running adjacent to one of the existing hedges. The proposals include retention of the majority of the hedges and mature treelines. The proposals are hereafter referred to as the 'Proposed Development'.
- 1.1.3 This report presents the findings of the suite of ecological surveys completed at the Woodcroft Farm Site in 2011 and 2012 by WSP Environmental on behalf of Grainger plc, to support the planning application for the Proposed Development. Surveys completed are listed below:
- Extended Phase 1 habitat survey, including:
 - Badger survey;
 - Habitat suitability assessment for reptiles;
 - Habitat suitability assessment for wintering birds;
 - Bat surveys, including:
 - Detailed building inspections for bats;
 - Emergence and re-entry surveys of suitable buildings;
 - Automated detector surveys of potential roosts;
 - Ground level tree inspections for bats;
 - At height tree inspections for bats;
 - Bat activity surveys (comprising walked transect and static detector surveys);
 - Dormouse surveys;
 - Breeding bird surveys;
 - Habitat suitability assessments for great crested newt of the solution features; and
 - Hedgerow surveys.

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- 1.1.4 The suite of ecological surveys completed at the Site concluded that the greatest nature conservation value lies within the existing mature trees and hedgerows and the species these support. These hedgerows and scattered trees are considered of Local value, whilst other habitats present are considered of Negligible or up to Site value only. In addition, the Site overall is considered of District value for foraging bats, Local value for roosting bats and breeding birds, up to Site value for wintering birds and of negligible value for other legally protected species.
- 1.1.5 Several statutory and non-statutory sites have been identified within 2km (10km in the case of European designated sites) of the Site; due to the distance of these from the Site, incorporation of recreational facilities within the Proposed Development and additional capacity in pre-existing recreational resources in the area a significant effect upon these sites is not anticipated.
- 1.1.6 Ecology has been considered from the early stages of masterplan design; enabling the majority of mature trees and hedgerows to be retained and for appropriate mitigation and compensation measures to be incorporated within the Proposed Development. The following measures have been incorporated to minimise effects upon ecology:
- Retention of the majority of mature trees and hedgerows within the masterplan;
 - Minimisation of number and width of hedgerow breaches;
 - Retention of all confirmed bat tree roosts and trees with high potential (BCT Category 2a) to support roosts;
 - Development of a sensitive lighting strategy;
 - Creation of two pond features as part of the SUDS design;
 - Creation of a new loft for long eared bats;
 - Inclusion of bat bricks/tiles or boxes within the built development for pipistrelle bats;
 - Installation of bat boxes within retained trees;
 - Installation of bird boxes within the built development;
 - New planting around the sports pitch and along the northern boundary, comprising native species; and
 - Construction working methods to avoid or minimise effects upon protected species or retained habitats.
- 1.1.7 Consequently, through the avoidance, mitigation, compensation and enhancement measures listed above and described in greater detail within this report (Section 6) it is considered the proposals will be able to proceed in accordance with legislation and planning policy.

2 Introduction

2.1 Project Background

- 2.1.1 Woodcroft Farm (hereafter known as the 'Site') is located in an agricultural landscape, adjacent to the residential area of Waterloooville in the Borough of Havant, Hampshire. It comprises six fields of close-grazed semi-improved grassland, separated by mature hedges; an occupied house and associated gardens; and an area of hard standing with a number of stable blocks and sheds. There is also a small area behind the sheds filled with old cars and other disused vehicles. A surfaced lane runs along the southern boundary of the Site, providing access to the buildings, whilst in the southern corner of the north western field there is a small sand riding arena. The Site boundary is shown on Figure 1.
- 2.1.2 The Site is accessible from Woodcroft Lane to the east, with a public bridleway running along the southern and western boundaries of the Site. The southern boundary of the Site runs parallel to the edge of the Wecock residential area whilst Lovedean residential area lies to the east. Immediately to the west lies an arable field, whilst to the north lie further horse pastures and James's Copse, which is an ancient semi-natural woodland.
- 2.1.3 The Site is allocated as a strategic site within Havant Borough Council's Core Strategy (HBC, 2011) for a 340 unit mixed use development. It is also listed within the Strategic Housing Land Availability Assessment (HBC, 2012) as an allocated strategic site for 320 dwellings. Grainger plc's proposals for the Site comprise development of 293 dwellings and include retention of the locally listed farmhouse, with the remaining outbuildings to be demolished. A replacement playing field for the school located immediately to the south will be created within the most easterly field; and a bridleway will be diverted, likely running adjacent to one of the existing hedges. Proposals include retention of the majority of the hedges and mature treelines. The proposals are hereafter referred to as the 'Proposed Development'.

2.2 Ecological Background

- 2.2.1 An Ecological Appraisal of the Site was completed by Bioscan in 2009 (Bioscan, 2009), this report concluded that the Site comprises an array of buildings set in poor semi-improved grassland separated into fields by mature hedgerows. Bioscan recorded a range of widespread bird species typical of these habitats during their site visit. In addition, in September 2009 Bioscan completed building inspections for bats and two bat activity surveys. These surveys recorded small numbers of droppings consistent with those produced by pipistrelles *Pipistrellus spp* in two buildings and activity by common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus*, *Myotis Myotis spp.* and serotine *Eptesicus serotinus* bats on the Site; with the majority of activity by common pipistrelle. Bioscan (2009) also considered the suitability of the chalk solution features on the Site for great crested newts *Triturus cristatus*. These were dry at the time of the Bioscan survey, but the Bioscan report also states that presence/likely absence surveys were begun for one of the solution features (P2 on Figure 2) by Epcad in 2002; but no great crested newts were found, and it dried up completely during the survey season. The other solution feature (P1 on Figure 2) was dry and therefore not surveyed in 2002, whilst P3 is described as not assessed. This survey by Epcad in 2002 referenced within the Bioscan report was not available to review directly.

2.3 Brief and Objectives

2.3.1 To evaluate the ecological value of habitats present on the Site WSP Environmental Ltd was commissioned in July 2011 by Savills LLP on behalf of Grainger plc to complete an extended Phase 1 habitat survey of the Site, including an ecological desk study. This survey is reported in full within this report. In addition, the extended Phase 1 habitat survey recommended a number of further species and habitat specific surveys were completed to support the planning application for the Proposed Development. These surveys were subsequently commissioned through the course of 2011 and 2012 and comprised the following surveys:

- Bat surveys, including:
 - Detailed building inspections for bats;
 - Emergence and re-entry surveys of buildings with potential to support bats;
 - Automated detector surveys of potential roosts;
 - Ground level tree inspections for bats;
 - At height tree inspections for bats;
 - Bat activity surveys (comprising walked transect and static detector surveys);
- Dormouse *Muscardinus avellanarius* surveys;
- Breeding bird surveys;
- Habitat suitability assessments for great crested newt of the solution features; and
- Hedgerow surveys.

2.3.2 These surveys were completed during 2011 and 2012 and the key results and implications are summarised within this document, with the full technical reports included as Appendices A to E.

3 Methods

3.1 Overview

- 3.1.1 This report contains full methods for the extended Phase 1 habitat survey, and summarises the methods used for the further surveys. The individual technical reports (Appendices A to E) should be consulted for full details of methods used for the further surveys.

3.2 Extended Phase 1 Habitat Survey

- 3.2.1 An extended Phase 1 habitat survey of the Site was completed in July 2011, this comprised a field survey (7th July 2011) and an ecological desk study, as described below.

3.2.2 Desk Study

- 3.2.3 The purpose of the desk study was to collate existing available ecological baseline data. This included information regarding sites designated for nature conservation reasons and records of species from the Site and surrounding area that may not be present or detectable at the time of survey. Information was requested for the Site itself and a 2km study area around the Site, extended to 5km for bats and 10km for European and International designated sites (Special Area of Conservation (SAC), Special Protection Area (SPA) and Ramsar sites) in line with standard guidelines (IEA, 1995, IEEM, 2012 and Mitchell-Jones, 2004).

- 3.2.4 Information was requested from the Hampshire Biological Information Centre (HBIC) which holds comprehensive biological records for Hampshire including data from the bird, invertebrate, bat, reptile and amphibian groups, and from the East Hampshire Badger Group. In addition, a review of the local Biodiversity Action Plan (BAP) was also undertaken to identify local priority habitats and species that may be pertinent to this site and a MAGIC (Multi-Agency Geographic Information for the Countryside) search was undertaken to search for information regarding statutory designated habitats.

- 3.2.5 The findings of the desk study are summarised within this report.

3.2.6 Field Survey

- 3.2.7 An extended Phase 1 habitat survey was conducted on 7th July, 2011, in accordance with good practice guidance (JNCC, 2010) and extended to consider the presence of protected species with regard for the Institute of Ecology and Environmental Management guidance (IEEM, 2012) the Institute of Environmental Assessment guidance (IEA, 1995). The survey was conducted by Rosie Hall MIEEM, Senior Ecologist at WSPE.

- 3.2.8 Phase 1 habitat survey is a standard technique for classifying and mapping British habitats. The dominant plant species were recorded and habitats classified according to their vegetation types and presented in the standard Phase 1 habitat survey format with habitat descriptions and a habitat map (Figure 2) with Target Notes (TN, Appendix F). Animal species were identified on an opportunistic basis. In addition, observed animal field signs were identified and recorded and general habitat assessments were made of the potential for the Site to support protected or notable species. Evidence of protected and notable species or species of conservation concern (such as UK BAP priority species or bird species listed on the RSPB red-list (Eaton *et al*, 2009)) and invasive species was recorded where they were found during the field survey.

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- 3.2.9 In addition to general consideration of potential for habitat to support protected species, the habitat suitability for reptiles and wintering birds was assessed in detail and badger signs searched for in tandem with the extended Phase 1 habitat survey. Methods used for these species/ species groups are described in further detail beneath (Sections 3.3 to 3.5).

Limitations

- 3.2.10 Extended Phase 1 habitat survey provides information relating to the habitats found within the Site perimeter as well as potential for protected species to use the Site. It is not possible to confirm the presence/absence of all protected species, as in order to provide definitive information relating to these factors, several visits to the Site incorporating many survey techniques at different times of year are usually required. Where potential for protected species was identified further surveys were undertaken; methods used are described within Sections 3.3 to 3.10 below.
- 3.2.11 An indicative plant species list (Appendix G) was recorded, with nomenclature following Stace (1997). Though the survey was completed within the optimal season for these surveys, it is possible that earlier or later flowering species were not identified and a Phase 1 survey cannot, therefore, be considered to provide a wholly comprehensive account of the ecological interest of the Site. The survey does, however, provide a "snapshot" of the ecological interest present on the day of the survey visit and as it was completed within the optimal season is considered sufficient to identify ecological constraints at the Site.

3.3 Badger Survey

- 3.3.1 The Site was surveyed for badgers during the extended Phase 1 habitat survey. This included searching for field signs of badger, such as setts, latrines, dung pits, pathways, prints and feeding remains.

Limitations

- 3.3.2 There were no constraints or limitations to the survey work.

3.4 Habitat Suitability Assessment for Wintering Birds

- 3.4.1 Habitat within the Site was appraised during the extended Phase 1 habitat survey to assess the Sites potential to support an interesting wintering bird community. Habitat types present were noted and the bird communities they could potentially support were appraised.

Limitations

- 3.4.2 There were no constraints or limitations to the survey work.

3.5 Habitat Suitability Assessment for Reptiles

- 3.5.1 The suitability of habitat within the Site for reptiles was assessed during the extended Phase 1 habitat survey, within the reptile active season. Habitat types present and availability of features such as log or rubble piles to form refugia were considered to inform an overall assessment of the likely value of the Site for reptiles. Following this, HBC were contacted to confirm agreement with conclusions drawn from the habitat suitability assessment.

Limitations

- 3.5.2 There were no constraints or limitations to the survey work.

3.6 Bat Survey

- 3.6.1 Bat surveys were completed with regard for good practice guidance applicable at the times of survey (BCT, 2007 and Hundt, 2012) and comprised the following elements:
- Detailed external and internal building inspections for bats of all nine buildings on the Site (16th August 2011);
 - Dusk emergence and dawn re-entry surveys of suitable buildings (Buildings A, Ca and Cb, D and G) (30th and 31st August 2011);
 - Automated detector surveys of buildings A and G (thirty three and thirty six nights of survey respectively in June and July 2012);
 - Ground level tree inspections for bats (16th August 2011);
 - At height tree inspections for bats of twenty three BCT Category 2a trees within the Site (10th and 12th October 2011); and
 - Six bat activity surveys comprising walked transect and static detector surveys. Four surveys comprised dusk walked transects and two surveys comprised both dusk and dawn walked transects within a 24hr period. Surveys were completed in August and September 2011 and June and July 2012. Automated survey data was collected from twelve locations for one night each in 2011, and from two locations for at least three nights on three separate occasions during 2012.
- 3.6.2 All field surveys were completed by Keystone Environmental on behalf of WSPE, with the exception of the at height tree inspections which were completed by Species Ecological Consultancy on behalf of WSPE. Surveys were completed by experienced surveyors, with bat survey licence holders used where required. Evaluation and interpretation of survey results was completed by WSPE.

Limitations

- 3.6.3 There were occasional problems with the power of automated detectors and it is possible the detector within Building G picked up registrations from outside the building. During the 2011 surveys, access could not be gained to a false ceiling within building D, one category 2a tree was considered unsafe to climb and there were some visibility constraints regarding emergence surveys of the western aspect of building D and the eastern aspect of building G. However, a precautionary approach was taken wherever limitations presented and overall these are not considered to have placed constraints upon the interpretation and evaluation of results. Full details of limitations are included within the 'Bat Surveys' and 'Bats: Detailed at height tree surveys' reports included within Appendix A.

3.7 Dormouse Survey

- 3.7.1 To establish whether dormice were present or likely absent dormouse tubes were installed within all suitable habitat on the Site in August 2011 and checked once a month from September to November 2011 (inclusive) and April to July 2012 (inclusive); the survey was also extended to include the small Hampshire County Council (HCC) woodland that lies adjacent to the south. The survey work was completed in accordance with good practice guidance (English Nature, 2006).

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- 3.7.2 The dormouse survey was completed by Rosie Hall MIEEM, Senior Ecologist at WSPE (Natural England dormouse survey licence numbers at the time of survey 20110727 and 20120725).

Limitations

- 3.7.3 On five of eight survey visits a small number of tubes had been tampered with. As inserts or tubes were replaced as required and this only affected between 1 and 5 of the 104 tubes present on the Site at any one time this is not considered to place constraints upon interpretation of the results.
- 3.7.4 The tubes within the HCC woodland to the south were added as a survey extension one month after those within the Site; however all tubes were present on the Site for a full survey year respectively and the HCC woodland is a small area which is contiguous along its length with the Site. Therefore, the slight difference in installation dates does not place any limitations upon the conclusions drawn.

3.8 Breeding Bird Survey

- 3.8.1 To inform an evaluation of the on-site habitats for bird species, four breeding bird survey visits were completed between April and June 2012. These comprised walked transect surveys, with frequent stops to scan for birds. The survey comprised three morning survey visits and one evening visit, which was extended by an additional hour and fifteen minutes to listen for crepuscular and nocturnal species. The survey work followed a standard method based on the British Trust for Ornithology's (BTO's) Common Bird Census (CBC) (summarised by Gilbert *et al.*, 1998).
- 3.8.2 Surveys were completed by BSG Ecology on behalf of WSPE.

Limitations

- 3.8.3 There were no constraints or limitations to the survey work.

3.9 Habitat Suitability Assessment for Great Crested Newts

- 3.9.1 The three depressions at the chalk solution features present on the Site were dry during the extended Phase 1 habitat survey (7th July 2011). To gain an understanding of whether these features hold water and function as ponds at any point these were revisited on the following dates (in association with other site surveys):
- 12th August 2011;
 - 13th September 2011;
 - 11th October 2011;
 - 9th November 2011; and
 - 24th January 2012.
- 3.9.2 Following this, the small garden pond, the three chalk solution features within the Site, and those lying in the field to the north were visited on the 2nd April 2012, within the great crested newt breeding season. Any depressions containing water (P2 and P6 on Figure 2) were assessed for suitability of habitat to support great crested newts in accordance with good practice guidance (Oldham *et al* (2000), further modified by NARRS, 2008).
- 3.9.3 All surveys were completed by Rosie Hall MIEEM, Senior Ecologist with WSPE (Natural England great crested newt survey licence number at the time of survey: 20114289).

Limitations

- 3.9.4 There were no constraints or limitations to the survey work.

3.10 Hedgerow Survey

- 3.10.1 Field survey of all hedgerows lying within the Site was completed by Rosie Hall on 13th September 2011. This survey recorded woody species, ground flora and associated hedgerow features present, as required under ecological criteria of the Hedgerow Regulations (1997), criteria 7 and 8.

Limitations

- 3.10.2 Criteria 6 which relates to whether a hedgerow supports protected species, was excluded as this is not possible to assess within one Site visit and has been considered in other assessments of the Site. Criteria 1-5 relate to the archaeological or historical value of a hedge and therefore were also excluded.
- 3.10.3 Survey of only one side of each hedgerow was completed; however, this is considered sufficient survey effort to establish whether a hedgerow is important under ecological criteria of the Hedgerow Regulations 1997.
- 3.10.4 The surveys were undertaken within the appropriate season for hedgerow surveys, which runs from April to October. The surveys were undertaken outside the 'optimal' season of May and June (when many woodland ground flora is in flower) and therefore some species such as bluebell *Hyacinthoides non-scripta* may no longer have been evident, however, this is not considered to have affected the robustness of the survey or the survey conclusions.

3.11 Evaluation of Results

- 3.11.1 Evaluation of the survey results was completed using IEEM (2006) guidance. This guidance recommends that the evaluation is made with reference to a geographical frame of reference as follows:
- International;
 - UK;
 - National (England);
 - Regional (South-east England);
 - County (Hampshire);
 - District (Havant Borough);
 - Local (around Wecock/Waterlooville); and
 - Within zone of influence only (i.e. at a Site level - within the confines of the Site boundary).
- 3.11.2 To inform the assessment in this report, desk study and field survey information has been considered in the context of the abundance of the species or habitat at the geographical levels listed above, the quality of the resource present and the geographical range of the species/distribution of habitats concerned, based on published accounts.

4 Results and Evaluation

4.1 Overview

- 4.1.1 The following sections include the full results of the extended Phase 1 habitat survey and a summary of results for the other surveys, which are reported in full within the technical reports in Appendices A to E. In addition, each ecological receptor is evaluated in accordance with IEEM (2006) guidelines.

4.2 Extended Phase 1 Habitat Survey

4.2.1 Overview

- 4.2.2 The results of the extended Phase 1 habitat survey are presented below. An extended Phase 1 habitat plan is attached as Figure 2, with further spatial constraints, relating to bats and hedgerows, included on Figure 3. Figure 2 illustrates the location and extent of all habitat types recorded on the Site. Any notable features or features too small to map are detailed using Target Notes (TN); these have been referred to in the descriptions below and are listed in Appendix F and an indicative list of the species recorded during the survey is provided in Appendix G. Relevant legislation and planning policy is included in Appendix H.

4.2.3 Desk Study

Sites designated for nature conservation

- 4.2.4 Statutory sites lying within 2km (extended to 10km) of the Site are summarised in Table 1 below¹.

Table 1 - Statutory designated sites

Site name	Designation	Approximate distance from Woodcroft Farm	Description	Value
Chichester and Langstone Harbours	SPA, Ramsar	7km south	This estuarine site supports significant numbers of wintering and breeding birds.	International
Portsmouth Harbour	SPA, Ramsar	8.3km southwest	This intertidal mudflat site supports a significant proportion of the winter populations of brent geese <i>Branta bernicula bernicula</i> , dunlin <i>Calidris alpina alpina</i> , black tailed godwit <i>Limosa limosa islandica</i> , red breasted merganser <i>Mergus serrator</i> .	International
Solent Maritime	SAC	7km south	Solent Maritime is primarily designated for its estuarine, spartina sward and Atlantic salt meadows; though a number of other coastal habitats are present within the site.	International
Butser Hill	SAC	7km northeast	This SAC comprises semi-natural dry grassland and scrub facies on calcareous substrates and yew woodland. Of particular interest is the lower plant flora, it has the richest terricolous lichen flora of any chalk grassland in England.	International
Solent and Isle of Wight	SAC	9.4km	This SAC encompasses a series of coastal lagoons with a range of salinities and substrates. They support a diverse	International

¹ Raw data supplied by HBIC is not included as reproduction is not permitted by the HBIC data users declaration; however, all records of relevance to the Site are summarised within this report.

Site name	Designation	Approximate distance from Woodcroft Farm	Description	Value
Lagoons		southwest	fauna including three notable species, the foxtail stonewort <i>Lamprothamnium papulosum</i> , lagoon sand shrimp <i>Gammarus insensibilis</i> , starlet sea anemone <i>Nematostella vectensis</i> .	
Catherington Down	Site of Special Scientific Interest (SSSI) Local Nature Reserve (LNR)	1.83km north	A west facing area of chalk grassland with fringing woodland belts. The chalk downland contains a wide range of herbs including significant populations of pyramidal orchid <i>Anacamptis pyramidalis</i> , autumn lady's-tresses <i>Spiranthes spiralis</i> and round headed rampion <i>Phyteuma tenerum</i> . The oak woodland has a hazel <i>Corylus avellana</i> understorey with a typical woodland ground flora including toothwort <i>Lathraea squamaria</i> .	National
Yeoll's Copse	LNR, (also a non-statutory designated Site of Interest for Nature Conservation (SINC))	680m northeast	Ancient semi-natural woodland site with old coppiced sessile oak <i>Quercus petraea</i> and wild service trees <i>Sorbus torminalis</i> . Common cow wheat <i>Melampyrum pratense</i> and butcher's broom <i>Ruscus aculeatus</i> are present.	County
Hazelton Common	LNR, (SINC)	1.45km east	Area of heathland vegetation with good breeding populations of stonechat <i>Saxicola torquata</i> , great crested newts and significant numbers of dragonflies. Forty three species of spider have been identified including three which are nationally notable. There are twenty six ancient woodland vascular plant indicator species present.	County

4.2.5 Twenty one non-statutory designated sites were identified within a 2km search area around the Site. The majority of these are Sites of Importance for Nature Conservation (SINC) for ancient woodland reasons, though there are also areas of unimproved and semi-improved grassland and lowland heathland. Records also include one Road verge of Ecological Importance. Those sites which are not also covered by a statutory designation (and hence listed in Table 1 above) are listed in Table 2 below.

Table 2 - Non-statutory designated sites

Site name	Designation	Approximate distance from Woodcroft Farm	Description	Value
James Copse & Outlier	SINC	0.02km north	Ancient semi-natural woodland supporting one or more notable species, Great woodrush <i>Luzula sylvatica</i> .	County
Wecock Common	SINC	0.3km south	Pasture wooded and wooded commons of significant biological and historical interest.	County
James' Copse Paddock	SINC	0.4km north	Agriculturally unimproved grassland.	County
Longwood (Idlewood)	SINC	0.7km east	Ancient semi-natural woodland.	County
Wecock Wood	SINC	0.7km east	Ancient semi-natural woodland.	County
Anmore Dell Meadow	SINC	0.8km west	Agriculturally unimproved grasslands supporting one or more notable species; smooth brome <i>Bromus racemosus</i> .	County
Kings Pond Meadow	SINC	1.2km west	Semi-improved grassland retaining a significant element of unimproved grassland.	County
Crabdens Copse	SINC	1.3km northwest	Ancient semi-natural woodland.	County
Crabdens Row	SINC	1.4km north	Ancient semi-natural woodland.	County
Dell Piece West	SINC	1.4km east	An area of open water which supports an outstanding assemblage of species. The Site supports several notable	County

Site name	Designation	Approximate distance from Woodcroft Farm	Description	Value
			arachnids.	
The Queen's Inclosure	SINC	1.4km southeast	Ancient semi-natural woodland.	County
Park Wood, Havant	SINC	1.5km southeast	Ancient semi-natural woodland.	County
Rabbit Copse, Horndean	SINC	1.5km north	Ancient semi-natural woodland.	County
Waterlooville Golf Course (North)	SINC	1.7km east	This Site comprises semi-improved grassland (retaining a significant element of unimproved grassland), and heathland vegetation.	County
Hazleton Wood	SINC	1.7km southeast	Heathland vegetation.	County
Dell Piece Gully	SINC	1.8km east	Ancient semi-natural woodland.	County
Piper's Hill Wood	SINC	1.8km southwest	Ancient semi-natural woodland.	County
Waterlooville Golf Course	SINC	1.9km southeast	Ancient semi-natural woodland, semi-improved grassland (retaining a significant element of unimproved grassland) and heathland.	County
Day Lane	Road Verge of Ecological Importance	1km north	A 640m length of road verge of interest for its chalk flora, species present of interest include rough poppy <i>Papaver hybridum</i> , nettle leaved bellflower <i>Campanula trachelium</i> and green hellebore <i>Helleborus viridis</i> .	County

Protected or notable species records

4.2.6 Records returned by HBIC are summarised below; a response from South East Hampshire Badger Group was not received. The absence of records should not be taken as confirmation that a species is absent from the search area, as it may reflect a lack of recording effort.

4.2.7 Birds

4.2.8 Records of forty two bird species which are legally protected or of conservation concern have been identified within 2km of the Site. These include fifteen species listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), seventeen Red listed Birds of Conservation Concern (BoCC); eighteen species listed as Species of Principal Importance (SPI) under the Natural Environment and Rural Communities NERC Act 2006 and seventeen UKBAP species. These records are largely available at 1km or tetrad resolution. Table 3 below summarises these records.

Table 3 - Summary of bird records

Latin Name	Common Name	Year of Most Recent Record	Schedule 1	RED	AMBER	NERC	UK BAP	HBAP
<i>Alauda arvensis</i>	Sky Lark	2008		X		X	X	X
<i>Alcedo atthis</i>	Common Kingfisher	2007	X		X			
<i>Asio flammeus</i>	Short-Eared Owl	2003			X			
<i>Branta bernicla</i>	Brent Goose	2006			X			
<i>Caprimulgus europaeus</i>	European Nightjar	2004		X		X	X	X
<i>Carduelis cabaret</i>	Lesser Redpoll	2009		X		X	X	
<i>Carduelis cannabina</i>	Common Linnet	2007		X		X	X	
<i>Circus cyaneus</i>	Hen Harrier	2002	X	X		X		x

Latin Name	Common Name	Year of Most Recent Record	Schedule 1	RED	AMBER	NERC	UK BAP	HBAP
<i>Dendrocopos minor</i>	Lesser Spotted Woodpecker	2009		X		X	X	X
<i>Egretta garzetta</i>	Little Egret	2009			X			X
<i>Emberiza citrinella</i>	Yellowhammer	2009		X		X	X	
<i>Emberiza schoeniclus</i>	Reed Bunting	2006			X	X	X	X
<i>Falco peregrinus</i>	Peregrine Falcon	2009	X					
<i>Falco subbuteo</i>	Eurasian Hobby	2009	X					X
<i>Ficedula hypoleuca</i>	Pied Flycatcher	2005			X			
<i>Fringilla montifringilla</i>	Brambling	2009	X					
<i>Gallinago gallinago</i>	Common Snipe	2010			X			X
<i>Haematopus ostralegus</i>	Eurasian Oystercatcher	2008			X			
<i>Larus marinus</i>	Great Black-backed Gull	2009			X			
<i>Larus melanocephalus</i>	Mediterranean Gull	2009	X		X			X
<i>Larus ridibundus</i>	Black-Headed Gull	2009			X			
<i>Loxia curvirostra</i>	Common Crossbill	2008	X					
<i>Lullula arborea</i>	Wood Lark	2009	X		X	X	X	X
<i>Milvus milvus</i>	Red Kite	2009	X		X			X
<i>Muscicapa striata</i>	Spotted Flycatcher	2003		X		X	X	X
<i>Numenius arquata</i>	Eurasian Curlew	2007			X	X	X	
<i>Numenius phaeopus</i>	Whimbrel	2009	X	X				
<i>Oenanthe oenanthe</i>	Northern Wheatear	2003			X			
<i>Pandion haliaetus</i>	Osprey	2005	X		X			
<i>Passer domesticus</i>	House Sparrow	2007		X		X	X	
<i>Phoenicurus phoenicurus</i>	Common Redstart	2005			X			
<i>Poecile palustris</i>	Marsh Tit	2010		X		X	X	
<i>Pyrrhula pyrrhula</i>	Common Bullfinch	2010			X	X	X	X
<i>Regulus ignicapilla</i>	Firecrest	2007	X		X			X
<i>Saxicola rubetra</i>	Whinchat	2002			X			X
<i>Streptopelia turtur</i>	European Turtle Dove	2009		X		X	X	X
<i>Sturnus vulgaris</i>	Common Starling	2010		X		X	X	
<i>Sylvia undata</i>	Dartford Warbler	2005	X		X			X
<i>Turdus iliacus</i>	Redwing	2009	X	X				
<i>Turdus philomelos</i>	Song Thrush	2010		X		X	X	X
<i>Turdus pilaris</i>	Fieldfare	2007	X	X				
<i>Vanellus vanellus</i>	Northern Lapwing	2003		X		X	X	X

4.2.9 A number of anecdotal bird records were collected from the Site during a previous Phase 1 habitat survey of the Site undertaken in September 2009 (Bioscan, 2009). Species present included blackbird *Turdus merula*, bluetit *Cyanistes caeruleus*, bullfinch *Pyrrhula pyrrhula*, buzzard *Buteo*

buteo, chaffinch *Fringilla coelebs*, chiffchaff *Phylloscopus collybita*, collared dove *Streptopelia decaocto*, goldcrest *Regulus regulus*, goldfinch *Carduelis carduelis*, great spotted woodpecker *Dendrocopus major*, great tit *Parus major*, green woodpecker *Picus viridis*, jay *Garrulus glandarius*, long tailed tit *Aegithalos caudatus*, magpie *Pica pica*, mistle thrush *Turdus viscivorus*, nuthatch *Sitta europaea*, robin *Erithacus rubecula*, sparrowhawk *Accipiter nisus*, swallow *Hirundo rustica*, tawny owl *Strix aluco*, treecreeper *Certhia familiaris*, wood pigeon *Columba palumbus* and wren *Troglodytes troglodytes*.

4.2.10 Bats

4.2.11 The ecological desk study highlighted records of a maximum of ten bat species within 5km of the Site, (records dated within the last 10 years). These species are:

- Serotine *Eptesicus serotinus* (closest record 1km south);
- Bechstein's *Myotis bechsteinii* (tetrad record, closest point 1.5km east);
- Whiskered/Brandt's/Alcathoe's *Myotis mystacinus/brandtii/alcathoe's* (closest record 2km southeast);
- Natterer's *Myotis nattererii* (closest records 2km west and southeast);
- Noctule *Nyctalus noctula* (closest record at 1km resolution, part of the site lies within this square (SU6811);
- Common pipistrelle *Pipistrellus pipistrellus* (closest record 0.5km south);
- Soprano pipistrelle *Pipistrellus pygmaeus* (closest record 1km north); and
- Brown long-eared bat *Plecotus auritus* (2km southeast).

4.2.12 These records are deemed sensitive and do not distinguish between roosts and individual sightings of bats (for example in flight), but do include records of larger numbers (>20) of bats for noctule (2004), brown long eared (1998-2009), common pipistrelle (2005-2009) and Bechstein's bats (2008-2009), which could be roost records.

4.2.13 The desk study also considered previous ecological survey completed on this Site, Bioscan (2009) states common pipistrelle, soprano pipistrelle, *Myotis* spp. and serotine were recorded on the Site.

4.2.14 Other mammals

4.2.15 One badger (Protection of Badgers Act 1992) record has been returned, 1.6km southwest of the Site.

4.2.16 Records of two UKBAP mammals have been identified, hedgehog (UKBAP) and brown hare (UKBAP, HBAP). Three records of brown hare have been returned, the closest is 1km west. Four records of hedgehog have been returned, the closest is 1.3km southwest.

4.2.17 Herpetofauna

4.2.18 All four widespread reptile species, grass snake *Natrix natrix* (eight records), adder *Vipera berus* (three records), common lizard *Zootoca vivipara* (nine records) and slow worm *Anguis fragilis* (seven records) have been recorded within 2km of the Site. The closest grass snake record is 1km east (1999), the closest adder record is 1.9km east (2001), the closest common lizard record 1.6km east (2010) and the closest slow worm record 1km east (2007). These species are all protected against killing and injury under the Wildlife and Countryside Act 1981 (as amended).

4.2.19 Great crested newt *Triturus cristatus* has been recorded 1.9km east of the Site, in Hazleton Common LNR on the opposite side of the Waterlooville residential area. Twenty four records were returned for this location, dated between 1984 and 2006. This species is fully protected under the Conservation of Habitats and Species Regulations 2010 (as amended) and the Wildlife and Countryside Act 1981 (as amended).

4.2.20 Invertebrates

- 4.2.21 Records of one hundred and twelve invertebrate species have been identified within 2km of the Site. This includes four nationally notable species, *Criorhina asilica*, *Eumerus ornatus*, *Volucella inflata*, *Volucella zonaria*, twenty two nationally scarce species and forty eight UK BAP species.

4.2.22 Plants

- 4.2.23 Thirteen protected or notable higher plant records have been identified within 2km of the Site, including two nationally rare species, field cow wheat *Melampyrum arvense* and box *Buxus sempervirens*; and one nationally scarce species, round headed rampion *Phyteuma orbiculare*.
- 4.2.24 Field cow wheat is also listed on Schedule 8 of the Wildlife and Countryside Act (1981 as amended); it has been recorded in James Copse (2009), 0.2km northeast of the Site, and also Yeoll's copse.
- 4.2.25 One Hampshire BAP species, green winged orchid *Orchis morio*, has also been recorded.

4.2.26 Descriptions of Habitats and their Ecological Value

Broadleaved woodland A1.1.1

- 4.2.27 An extremely small area (approximately 0.03ha) of deciduous woodland lies in the far south-eastern corner of the Site. This is dominated by pedunculate oak *Quercus robur* and ash *Fraxinus excelsior*, with a hawthorn *Crataegus monogyna* understorey. Ground flora includes ivy *Hedera helix*, wood avens *Geum urbanum*, cuckoopint *Arum maculatum*, wood sedge *Carex sylvatica* and hedge woundwort *Stachys sylvatica*. Due to the small size and unremarkable species composition, and as the majority of trees within this woodland block are immature or semi-mature, this small area of woodland is considered of **Site** value at most.

Broad-leaved Scattered trees (A3.1)

- 4.2.28 A large number of mature trees are present on the Site, primarily oaks; some of these form standards within the hedgerows but there are also small groups of scattered trees in the centres of several fields, focussed around the sunken chalk solution features:
- A group of three mature pedunculate oak trees are located in the south westerly field; with a further two mature oaks close to the southern boundary of this field, these trees contain split limbs and woodpecker holes (TN1);
 - There are seven mature trees within the north westerly field, four oaks and two ash and a mature hawthorn (TN2), rot features and holes are present within these. The hawthorn is located adjacent to the solution feature and as an old large specimen for this species is of recognised ecological value in its own right; and
 - The large central field contains a number of mature oak and ash trees around a depression in the centre of the field, a further four mature oaks are located along the northern boundary of this field (H10). Trees within this group have cracks, holes and dead limbs (TN3).

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- 4.2.29 Some dead trees are also present, including a dead mature tree (TN4), providing standing dead wood habitat and a pollarded dead tree on the eastern boundary (TN5).
- 4.2.30 The scattered trees on the Site provide nesting habitat for birds and roosting opportunities for bats. They also contain a deadwood habitat which is of value for invertebrates. The number, age and maturity of trees present mean the scattered broadleaf tree resource within the Site is considered of **Local** value.

Semi-improved grassland - species poor (B6)

- 4.2.31 All six fields comprise semi-improved grassland, which is extremely close grazed by horses with the exception of the north westerly field which had been recently cut for hay at the time of survey². Grazing occurs right to the base of the hedges. Species present include perennial rye grass *Lolium perenne*, smooth meadow grass *Poa pratensis*, large leaved timothy *Phleum pratense*, creeping bent *Agrostis stolonifera*, creeping buttercup *Ranunculus repens*, self-heal *Prunella vulgaris*, red bartsia *Odonites verna*, daisy *Bellis perennis*, white clover *Trifolium repens*, dandelion *Taraxacum officinale* agg., broadleaf dock *Rumex obtusifolius*, ribwort plantain *Plantago lanceolata* and meadow buttercup *Ranunculus acris*. The two fields in the south-western corner of the site are clearly heavily used; there are substantial bare patches and concentrations of scented mayweed *Matricaria recutita* and greater plantain *Plantago major* in the gateways, indicating disturbed ground. Additional species found in the northern fields are cut leaved cranesbill *Geranium dissectum*, speedwell *Veronica spp.*, common mouse ear *Cerastium fontanum*, common chickweed *Stellaria media* and creeping thistle *Cirsium arvense*. The close grazed pastures contain a typical flora for poor semi-improved pasture in Hampshire, and consequently are considered of **Site** value.

Tall ruderal (C3.1)

- 4.2.32 There are two small areas of tall ruderal habitat on the Site, to the south of the riding arena and to the east of the barns. Species present include nettle *Urtica dioica*, smooth sow thistle *Sonchus oleraceus*, hogweed *Heracleum sphondylium*, field bindweed *Convolvulus arvensis*, traveller's joy *Clematis vitalba*, cleavers *Galium aparine*, broadleaf dock, black medick *Medicago lupulina*, creeping thistle, bramble *Rubus fruticosus* agg. and rose *Rosa spp.* Both areas are dominated by tall nettle growth; the small area of tall ruderal to the south of the riding arena contains a number of ash saplings; whilst that to the east of the barns contains a number of immature willows *Salix spp.* Due to the small area and widespread species present the tall ruderal habitat is considered of **Site** value at most.

Amenity grassland (J1.2)

- 4.2.33 Amenity grassland is present around the house, forming a mown lawn. Species present here include perennial rye grass, smooth meadow grass, Yorkshire fog *Holcus lanatus*, creeping buttercup *Ranunculus repens*, dandelion, greater plantain, ground ivy *Glechoma hederacea*, white clover and moss.
- 4.2.34 There is also a small mown area of amenity grassland at the end of the track leading to the sand riding arena. Species present include perennial rye grass, white clover, red clover *Trifolium pratense* and ribwort plantain.
- 4.2.35 These small areas of amenity grassland are considered of **Negligible** ecological value.

² Subsequent site visits showed this field is also usually grazed.

Boundary features

- 4.2.36 The fields on Site are bounded by hedgerows and treelines. The types of hedgerow present on the Site are described below. Though described separately below, the hedgerow resource on the Site as a whole is considered of **Local** value, primarily due to the presence of large numbers of mature standard trees within the hedgerows (see Section Broad-leaved Scattered Trees above). Other boundary features such as fences are considered of **Negligible** ecological value.

Native species rich hedgerows with trees (J2.3.1)

- 4.2.37 The majority of the hedgerows present on the Site are native species rich hedgerows with trees. Species present include oak, willow, blackthorn *Prunus spinosa*, yew *Taxus baccata*, holly *Ilex aquifolium*, ash and field maple *Acer campestre*, hawthorn, ash, rose and wild service tree *Sorbus torminalis*. Not all of these hedgerows qualify as important hedgerows under the Hedgerow Regulations (1997) as whilst they may contain five species, and thus can be considered species rich, they have insufficient associated features.
- 4.2.38 The ground flora of these hedgerows is heavily grazed on the pasture side of the hedges but in ungrazed areas (for example to the south of the hedgerows along the southern Site boundary) contains species including hedge bindweed *Calystegia sepium*, ivy, wood avens, hard fern *Blechnum spicant*, willowherb *Epilobium spp.*, wood sedge, timothy *Phleum pratense*, enchanter's nightshade *Circaea lutetiana*, dock *Rumex spp.*, false oat grass *Arrhenatherum elatius*, herb robert *Geranium robertianum*, wood sage *Teucrium scorodonia* and bracken *Pteridium aquilinum*.

Native species rich intact hedge (J2.1.1)

- 4.2.39 A species rich intact hedgerow³ without standard trees bounds the eastern side of the garden (H6); a lawn is mown to the base of this hedge.

Native species poor intact hedge (J2.1.2)

- 4.2.40 A number of hedgerows present on the Site are species poor (H15, H16); species present include ash, oak, rose and hawthorn, though individual hedgerows do not contain all of these species. Ground flora primarily consists of cocksfoot *Dactylis glomerata*, false oat grass, dandelion, dock, perennial rye grass and ivy.

Defunct hedge (J2.2.2)

- 4.2.41 Two field boundaries (H10 and H11) comprise lines of mature oaks, one with a few leggy hawthorns present. These are likely to have been hedges in the past, which are now defunct.

Dry ditch (J2.6)

- 4.2.42 A dry ditch is present in places along the base of the hedge to the north of the access road on the southern boundary of the Site. The vegetation community growing in this ditch suggests it is permanently dry; species include bramble, wood avens, willowherb, enchanter's nightshade, hard fern, false oat grass, herb robert, wood sage, bracken and ivy. This ditch is considered of **Site** value.

³ This hedgerow contains five species and therefore has been classified as a species rich intact hedgerow for the purposes of Phase 1 habitat survey (where the number of species required for a hedgerow to be termed species rich is not defined); however, there are insufficient species within a 30m length for this hedgerow to qualify as an important hedgerow under ecological criteria of the Hedgerow Regulations (1997).

Buildings and hardstanding (J3.6)

- 4.2.43 A number of buildings are located towards the western end of the Site. These include a house and an assortment of stables, barns and sheds; these are constructed of a mixture of wood, corrugated metal and asbestos, brick and breeze blocks. Photographs and full descriptions of all the buildings on Site are presented within the bat report in Appendix A. The buildings present are considered of **Negligible** value in isolation, though it should be noted that some support protected or notable species (see Sections 4.6 and 4.8); in these instances the structures in question can be considered to contribute to the value assigned to that species group (bats or birds).
- 4.2.44 Hardstanding is present around the buildings and on the access road. It comprises a combination of compacted gravel, concrete and broken out tarmac and supports an ephemeral (J1.3) community comprising abundant scented mayweed *Matricaria recutita*, knotgrass *Polygonum aviculare*, greater plantain and nettle. Perennial rye grass, cocksfoot, white clover, red clover and bird's foot trefoil *Lotus corniculatus* are also present on the less used section of hardstanding to the rear (west) of the parking area. This habitat type is considered of **Negligible** ecological value.

Bare Ground (J5)

- 4.2.45 Bare ground is present, along the access track leading from the buildings to the north west corner of the Site. This habitat type is considered of **Negligible** ecological value.

Garden (J5)

- 4.2.46 A garden lies to the north of the house, east of the stable blocks (TN6). This is a typical garden containing cultivated plants, amenity grassland and an extremely small pond (P6). This habitat type is considered of **Negligible** ecological value.

Sand Riding arena (J5)

- 4.2.47 A sand riding arena lies on the western boundary of the site (TN7). Greater plantain, scented mayweed, dock and some grasses are encroaching into the corners of this riding arena. This habitat type is considered of **Negligible** ecological value.

Incidental species records during extended Phase 1 habitat survey

- 4.2.48 A roe deer *Capreolus capreolus* doe and fawn were observed foraging.
- 4.2.49 The following bird species were recorded on or over the Site during the extended Phase 1 habitat survey.

Table 4 - Birds recorded during extended Phase 1 habitat survey

Common name	Latin name
Greenfinch	<i>Carduelis chloris</i>
wood pigeon	<i>Columba palumbus</i>
carrion crow	<i>Corvus corone corone</i>
great spotted woodpecker	<i>Dendrocopus major</i>
Robin	<i>Erithacus rubecula</i>
Chaffinch	<i>Fringilla coelebs</i>
Swallow	<i>Hirundo rustica</i>

Common name	Latin name
blue tit	<i>Cyanistes caeruleus</i>
great tit	<i>Parus major</i>
chiff chaff	<i>Phylloscopus collybita</i>
Magpie	<i>Pica pica</i>
green woodpecker	<i>Picus viridis</i>
Wren	<i>Troglodytes troglodytes</i>
Blackbird	<i>Turdus merula</i>

4.2.50 Invertebrates

- 4.2.51 Consideration was given during the extended Phase 1 habitat survey to the potential for the Site to support a notable community of invertebrates. The mature oaks and hedgerows, which are due to be retained, are considered likely to support an invertebrate assemblage. However, the remainder of habitats present, dominated by species poor semi-improved grassland, are not considered likely to support a notable or interesting invertebrate community. Therefore, this species group was scoped out of further surveys due to the absence of likely effects.

4.3 Badger Survey

- 4.3.1 No evidence of badgers was observed within the Site boundary.
- 4.3.2 However, an active outlier sett was identified approximately 37m north of the Site boundary, within the hedgerow running north between the fields immediately north of the Site. Fresh spoil was present here, with badger hair and a prominent pathway over the spoil heap indicating it was active at the time of the extended Phase 1 survey (July 2011).
- 4.3.3 A second outlier sett was identified within the chalk solution feature P4 during the great crested newt habitat suitability assessment (April 2012). This lies approximately 80m north of the Site, and comprises one entrance with some fresh spoil and bedding present.
- 4.3.4 Badgers could forage within the pastures, but due to the absence of badger evidence within the Site it is currently considered of **Negligible** value for badgers.

4.4 Habitat Suitability Assessment for Wintering Birds

- 4.4.1 Habitats present within the Site were assessed for their potential to support wintering birds during the extended Phase 1 habitat survey. This assessment was also informed by the records search within the desk study and concluded that habitat present was typical of the local area, and likely to support only common wintering species. Widespread resident species such as robin, wren and blue tit are likely to remain present and there is potential for use of the hedgerows by foraging flocks of finches or thrushes moving across the landscape. Brambling, fieldfare and redwing have been recorded within 2km of the Site and these species are winter visitors which may forage on the Site as part of their use of a wider area of the landscape.
- 4.4.2 Brent goose records have also been identified within 2km of the Site; this species is a reason for designation for the SPAs and Ramsars in the Solent and also forages in areas outside these designated sites. However, the Site is unlikely to be a resource for this species, or other waders or geese, as it is adjacent to a residential area, and consequently disturbed by people and dogs, and consists of relatively small fields, separated by tall hedges and treelines. These features mean it is

unlikely to be used by grazing geese or waders as these prefer more open grasslands with a good line of sight to see predators, and fewer disturbances. It does not fall within the area surveyed for the Solent Waders and Brent Goose Strategy (King, 2010); indicating it lies beyond the areas considered of relevance to the Solent sites.

- 4.4.3 Overall, the Site is considered likely to support a widespread and unremarkable bird community in winter, and therefore is considered of **Site** value at most to wintering birds.

4.5 Habitat Suitability Assessment for Reptiles

- 4.5.1 The habitat suitability for reptiles was assessed during the extended Phase 1 habitat survey, within the reptile active season. This concluded the Site, comprising close grazed horse pastures, separated by hedgerows, is of low suitability for reptiles. The horse pastures do not provide suitable habitat for reptiles as the grazing intensity ensures a lack of cover. Similarly, whilst movement of an occasional grass snake along the hedgerows can never be entirely ruled out, the hedgerows present are of low suitability for reptiles. The hedgerows do not have an extensive field layer, or broad field margin, again due to grazing to the hedge base, and routine strimming of any ruderals (for example nettles) which are not grazed. Following consultation with HBC (incorporating advice from their ecological advisor at HCC) the absence of requirement for formal reptile survey was agreed (see letter reference GEN/11/01295, Appendix I). As the habitat suitability assessment shows the potential for reptile populations to be present is limited the Site is consequently considered of **Negligible** value for reptiles.

4.6 Bat Survey

- 4.6.1 Surveys identified one current summer/transitional roost used by small numbers of common pipistrelle bats (Building G), which may also have been used historically or be used occasionally by small numbers of long eared bats; and one historic long eared bat roost (Building A), within the buildings present. In addition, three confirmed tree roosts (T83, T26 and G51c) and twelve further trees with high potential (BCT category 2a⁴) to be used as roosts have been identified. As a result the Site is considered of **Local** value for roosting bats.
- 4.6.2 Activity surveys recorded at least six species, including common pipistrelle, soprano pipistrelle, noctule, serotine, long eared and myotis bats. High levels of pipistrelle activity were recorded, with myotis and long eared bats also recorded on the majority of surveys, though at lower levels and largely in association with treelines and hedgerows running around the Site boundary, or across the Site. Noctule and serotine activity on the Site was much less frequently recorded and at lower levels. Overall, the Site is considered a foraging and commuting resource of **District** value for bats;
- 4.6.3 Full results and discussion of these can be found within the technical reports within Appendix A.

4.7 Dormouse Survey

- 4.7.1 No dormice or evidence of dormice were found within any tube within the Site, or on adjoining land to the South; therefore, dormice can be considered likely absent from both the Site and adjoining HCC woodland. As dormice are considered likely absent the Site is considered of **Negligible** value for this species.

⁴ Categorisation of trees with high potential to support roosts as BCT Category 2a follows the BCT 2007 guidelines, which were those applicable at the time of survey.

- 4.7.2 Full results and discussion of these can be found within the technical report within Appendix B.

4.8 Breeding Bird Survey

- 4.8.1 The Site has been found to support a range of common and widespread species typical of the habitats present. All nesting birds were associated with hedgerows, trees and buildings, with no species of open-ground noted within the site boundary. Some birds that breed on the Site, including song thrush *Turdus philomelos* (up to five territories) and dunnock *Prunella modularis* (up to six territories) are of conservation priority at the local and national level, while another priority species, starling *Sturnus vulgaris*, uses the Site extensively for foraging but breeds in local residential areas. Notwithstanding this these species remain numerous or abundant at the county level. On both this basis, and due to the unexceptional nature of the habitats on the Site, the breeding bird community is considered to be of **Local** value.

- 4.8.2 Full results and discussion of these can be found within the technical report within Appendix C.

4.9 Habitat Suitability Assessment for Great Crested Newts

- 4.9.1 The Site is predominantly close grazed pasture; whilst hedgerows dominated by mature oaks are present; grazing occurs to the hedge bases, limiting the cover available to great crested newts at ground level. Whilst the Site is not completely unsuitable for great crested newts, the current management, comprising intense pony grazing, limits its value as terrestrial habitat. In addition, no ponds have been identified within 500m of the Site boundary, with the depressions previously identified for further investigation (P4-5) found not to hold water. Historic survey data and the result of this survey indicate that the majority of the chalk depressions within the site (P1-3) either do not hold water at all, or are dry for the majority of the year. Whilst the garden pond scored a HSI of 0.54, this is still of below average suitability and as an extremely small pond (2.5m x 1m) is considered unlikely to support a population of great crested newts in isolation. Overall, a combination of limited, short term, or no water retention within the depressions present on the Site, low quality terrestrial habitat due to the current management regime, and a lack of other water bodies within 500m of the Site mean the Site is unlikely to support a population of great crested newts. The Site is considered of **Negligible** value for great crested newts.

- 4.9.2 Full results and discussion of these can be found within the report within Appendix D.

4.10 Hedgerow Survey

- 4.10.1 Eight of the sixteen surveyed hedgerows meet at least one of the ecological criteria classifying them as Important under the Hedgerow Regulations 1997. The remaining hedgerows do not qualify as 'important hedgerows' under ecological criteria, several of these are defunct hedgerows comprising lines of mature oaks, or lack sufficient associated features. Though only half the hedgerows qualify as Important hedgerows, all qualify as Habitat of Principle Importance (HPI) under the NERC Act (2006) and the resource as a whole is considered of **Local** value, primarily as a consequence of the number of mature trees within the hedgerows.

- 4.10.2 Full results and discussion of these can be found within the report within Appendix E.

5 Discussion of Potential Effects

5.1 Statutory Designated Sites

5.1.1 European Designated Sites within 10km

5.1.2 The HBC Core Strategy Appropriate Assessment (UE Associates, 2010) identifies recreation, water abstraction, waste water pollution and air pollution as potential effect pathways upon European designated sites associated with development of the Woodcroft Farm strategic site (the Site).

5.1.3 There is potential that the increased population within Havant Borough as a result of development of the Woodcroft Farm Site could result in an increase in the numbers of people visiting sensitive European designated sites on the Solent coast (see Table 1 for site list). However, the Site lies at least 7km from the European designated sites identified within the desk study and research suggests the frequency of visits declines with distance from the coast (Fearnley *et al*, 2011). In addition, it is possible to walk a 2km circuit within semi-natural surrounds from the Site, along existing bridleways and these will be enhanced as follows; one bridleway will be re-routed through the development, running adjacent to a retained hedgerow, enhanced with a buffer of wildflower meadow seeding and seasonal bulbs (Allen Pyke, 2013a). In addition, the bridleway lying to the west and byway open to all traffic (BOAT) to the east will be enhanced where appropriate in association with the Proposed Development, for example with improved signage or surface as required, whilst ensuring the natural appearance and attraction of these is retained. There are also approximately two hectares of informal open space as verges and play areas within the Proposed Development itself (Allen Pyke, 2013b). The improvements to these in association with the Proposed Development are likely to mean these are more attractive to both existing and new residents; in particular for dog walking, which is one of the more disturbing types of recreational activity on the coast. Therefore, whilst it is accepted current recreation has a negative effect upon some waders within these European designated sites, and future recreation is likely to continue to do so (Stillman *et al*, 2012), it is not anticipated the Proposed Development will have a significant effect upon this.

5.1.4 A further potential effect pathway is through water abstraction or waste water. The water company (Southern Water) has confirmed there is sufficient capacity within the existing water infrastructure to service the Proposed Development; whilst a Sustainable Urban Drainage strategy (SUDs) forms an integral part of the Site masterplan. Therefore, effects upon the European designated sites through this pathway are not anticipated.

5.1.5 The third potential effect pathway identified within the HBC Core Strategy Appropriate Assessment (UE Associates, 2010) is through nitrogen deposition as a result of increased vehicular emissions. Research indicates traffic growth could cause effects upon some designated sites, such as Langstone Harbour (AEA, 2010). However, no specific assessment of the effects of traffic from the Proposed Development is available.

5.1.6 Other Statutory Designated sites within 2km

5.1.7 Catherington Down SSSI and LNR lies approximately 1.8km north, designated for the quality of its chalk grassland (see Table 1). There will be no direct effect upon this site as a consequence of the Proposed Development, and this site is considered sufficiently distant from the Site for significant indirect effects as a result of recreation to be unlikely.

5.1.8 A further two LNRs lie within 2km of the Site, Yeoll's Copse and Hazelton Common (See Table 1). Ancient woodland and heathland respectively these sites are again considered sufficiently distant from the Site for potential effects to be unlikely.

5.2 Non-Statutory Designated Sites

- 5.2.1 Though twenty-one SINC's lie within 2km of the Site (See Table 2), the majority are considered sufficiently distant from the Site for effects to be avoided. Other, closer SINC's lie within existing residential areas, which are likely to have greater effects than development of the Site. James Copse, however, lies approximately 20m north of the Site, and therefore has potential to be exposed to adverse effects as a result of increasing recreational pressure associated with the Proposed Development.
- 5.2.2 James Copse is already subject to public access, including some informal access, as a consequence of lying immediately adjacent to an existing residential area, and the existing bridleway running along the western side of the copse. An increase in local residents as a consequence of the Proposed Development is likely to increase use of this bridleway and mitigation for this potential recreational effect will be provided (see Section 6.2 below).

5.3 Habitats

- 5.3.1 The Proposed Development will result in the loss of a small number (approximately thirteen) of semi-mature trees, located around the existing house, the loss of one tree on the southern Site boundary and the loss of some more immature trees and shrubs forming hedgerow H6. These trees are specimens of lower ecological value, with the high value tree stock on the Site retained and incorporated within the Proposed Development.
- 5.3.2 In addition, hedgerows H6 and H8 will be removed. These hedgerows do not qualify as important under the Hedgerow Regulations 1997. Three other hedgerow breaches are required for routing of roads, whilst footpath connections have been located within existing gateways. These hedgerow breaches have been located within sections of shrub, avoiding mature trees, which would not be replaceable in the short term.
- 5.3.3 Otherwise, the Proposed Development will result in the loss of close grazed species poor pony pasture and a very small area of ruderal vegetation; neither of which are considered of significant ecological value.

5.4 Protected or Notable Species

- 5.4.1 In the absence of mitigation as described within Section 6 the following effects upon protected or notable species would be anticipated:
- Loss of some birds as breeding species at the Site, for example swallow as a result of loss of nesting sites within existing buildings, though as the majority of species present are associated with hedgerows and treelines, which are due to be retained, the majority of species present are likely to continue to persist within the Proposed Development;
 - Increased disturbance of some bird species, for example of skylark on adjoining land to the west, though this land is already adjoined by residential development to the south, which presumably does not prevent skylark nesting as this species was recorded over this field in 2012, and retention of the hedgerow on the western boundary will minimise disturbance to off-site birds;
 - Loss of bat roosts within Buildings A and G; these comprise a likely historic long eared bat roost which is not currently in use and a roost used intermittently by low numbers of pipistrelle bats respectively;
 - Isolation within built development of a confirmed tree roost and reduction in potential roost availability through loss of a small number of BCT Category 2b trees, which as a consequence of some ivy cover cannot be scoped out as having negligible potential to support roosting bats; and

- Reduction in foraging area through loss of pasture and alteration of setting of retained hedgerows and mature treelines.

5.4.2 Mitigation built into the masterplan design to avoid, mitigate and compensate for the potential effects described above is included beneath in Section 6.

6 Avoidance, Mitigation and Compensation Measures

6.1 Overview

6.1.1 Following recommendations set out within the individual technical reports (Appendices A to E) avoidance, mitigation and compensation measures have been built into the scheme masterplan design to avoid effects upon the ecological receptors identified within the results section above. The following key measures are included:

- Retention of the majority of mature trees and hedgerows within the masterplan;
- Minimisation of number and width of hedgerow breaches;
- Retention of all confirmed bat tree roosts (BCT Category 1) and trees with high potential (BCT Category 2a) to support roosts;
- Development of a sensitive lighting strategy;
- Creation of two pond features as part of the SUDS design;
- Creation of a new loft for long eared bats;
- Inclusion of bat boxes within the built development for pipistrelle bats;
- Installation of bat boxes within retained trees;
- Installation of bird boxes within the built development;
- New planting around the sports pitch and along the northern boundary, comprising native species;
- Implementation of measures during construction to avoid and minimise effects upon protected species or retained habitat; and
- Installation of interpretation boards where bridleway enters James Copse to inform public of wildlife interest of the copse.

6.1.2 These elements are described in further detail in the following sections.

6.2 Avoidance and Mitigation Measures

6.2.1 Retention of mature trees and hedgerows

6.2.2 A key element of the masterplan design is the retention of mature treelines and hedgerows throughout the Proposed Development, in accordance with HBC Core Strategy Development Management (DM) Policy 8, which states development will only be permitted where *'it protects natural features of nature conservation....for example trees, woodlands, hedgerows [etc].....from damage, destruction and a deterioration in quality'* and *'sympathetically incorporates existing features into the overall design of the scheme including measures taken to ensure their continued survival'*. This has been achieved through minimising the requirement for hedgerow breaches and retaining isolated tree groups (currently within the centre of the fields) as landscape features within the

Proposed Development. Road routing throughout the development has been designed to avoid hedgerow breaches wherever possible and where breaches are required, to avoid mature trees, which are of greater value than sections of shrubs, and due to their maturity cannot be replaced in the short term. As a result, only hedgerows H6 and H8 will be lost in entirety as a result of the Proposed Development. Hedgerow 8 is a non-native conifer hedgerow, and therefore does not qualify as an important hedgerow under ecological criteria and is considered of negligible ecological value. Hedgerow 6 is not ecologically important under the Hedgerow Regulations and the trees within it are of negligible or low potential (BCT category 2b) to support roosting bats. In addition to retaining these hedgerows and mature treelines, the Proposed Development masterplan also ensures these are located within public areas wherever possible. Roads, paths and car parks face onto hedgerows in the majority of instances, which will ensure the ecological value of the hedgerows can be maintained in the long term, avoiding the detrimental effects upon hedgerows which are often associated with inclusion within residential gardens. Inclusion within public areas will also aid retention within the Proposed Development of the bird community which currently utilises these features, allowing development of grassy margins which will increase the value of these to seed eating (e.g. bullfinch) and insectivorous species (e.g. dunnock).

- 6.2.3 The masterplan design ensures all confirmed bat tree roosts (BCT Category 1) and trees with high potential to support bat roosts (BCT Category 2a trees) are retained within the Proposed Development, thereby *'protecting wildlife habitats and wildlife corridors'* in accordance with HBC Core Strategy Policy CS11. In addition, the majority of trees with low potential are also retained, with only a small number lost (approximately 13) around the existing farm and outbuildings, and a further one removed on the southern boundary south of unit 35. Retention of these trees will ensure the roosting resource currently available remains available during construction and once the Proposed Development is operational.

6.2.4 Lighting strategy

- 6.2.5 The lighting strategy for the Proposed Development will be designed with regard for maintaining dark corridors around and across the Proposed Development, in association with retained vegetative corridors. In accordance with BCT/ILE (2008) this strategy will include:

- The avoidance of lighting of retained vegetation unless required for safety or access reasons;
- Where lighting cannot be avoided along footpaths or cyclepaths hoods, cowls, louvres or shields or bollard lighting will be used to minimise light spill onto retained vegetation;
- Use of timers so dark periods occur during the night, as opposed to continuous lighting;
- Use of directional lighting to avoid illumination of confirmed bat roosts;
- Limiting the height of lighting columns, with light directed downwards and below three lux at ground level;
- Avoiding mercury or metal halide lights; and
- Use of new planting to screen and filter lighting, shielding retained vegetation.

- 6.2.6 The lighting strategy for the development also aims to fulfil the criteria within policy DM10 Pollution which states *'External lighting is of the minimum level of illumination and duration required for security and operational purposes'*.

6.2.7 Access Management Measures

- 6.2.8 Improvements to the BOAT along the edge of James Copse are proposed in association with the Proposed Development, where necessary. At present this bridleway is wet and consequently people

tend to walk around and off the path, causing erosion to a wider area of the SINC. Once the proposed path improvements have been completed the route will be clearer and more resilient to use.

- 6.2.9 In addition, subject to agreement with the landowner and HBC, interpretation boards would be provided where the bridleway enters the copse, explaining the nature conservation interest of this area and encouraging good practice, such as remaining on paths, collecting dog faeces and other measures. A combination of provision of interpretive information and improvements to the existing right of way along the woodland edge are considered to minimise any effects from increased use of this path as a consequence of increased housing provision in the area.

6.2.10 Implementation of avoidance measures during construction

- 6.2.11 The following measures will be implemented during the construction period to avoid effects upon ecological receptors, and '*ensure their continued survival*', as required by HBC policy DM8:

- Protective fencing will be installed around trees and hedgerows in accordance with BS3857 Trees in relation to construction to prevent damage to these during construction;
- Vegetation clearance and building demolition will be completed between September and February inclusive to avoid the risk of damaging or destroying active bird's nests; where this is not possible an ecological clerk of works will inspect the vegetation/structure prior to removal and should a bird's nest be present this will be left in situ with an appropriate sized buffer until the birds have fledged.
- Care will be taken to avoid injury, mortality or disturbance of badgers. This will include the following measures:
 - Trenches and holes will not be left open overnight; if this is not possible a ramp (such as a plank) will be left in place to enable egress of any animal which falls in;
 - fencing required during construction will be raised 180mm above the ground; and
 - illumination of badger setts lying to the north of the Site and associated potential foraging areas will be avoided.
- A precautionary clearance method will be used during removal of hedgerows 8 and 6, removal of small areas of ruderal vegetation and creation of required hedgerow breaches; in order to avoid effects upon reptiles in the unlikely event a transitory grass snake is present. This will include completion of ground works such as stump removal and top soil stripping under supervision of a suitably qualified ecologist between April and September when reptiles are active.
- Avoidance of lighting of the Site after dark during the construction period, to avoid effects upon foraging bats.
- Completion of roost demolition under EPS licence from Natural England using the following techniques:
 - Removal of buildings or trees in October/November;
 - appropriate soft strip techniques, removing internal felt and tiles of Building G under supervision of a licensed bat worker; and
 - should any bats be found, retention of these until dusk, when they will be released within the Site.
- Soft felling of trees with low potential to support bats (BCT Category 2b) which must be removed (in accordance with current best practice guidance (Hundt 2012)). Comprising:
 - inspection of tree to confirm absence of roosts; and
 - soft felling, which comprises gradual removal of limbs.

6.3 Compensation Measures

6.3.1 Bat loft

- 6.3.2 Long eared bats prefer open spaces for roosting; therefore, one new feature for this species will be incorporated as proportionate compensation to replace the resource to be lost. This will comprise a typical loft within a pitched roof that is not obstructed by too many trusses and so has open space for bats to fly within. The roof void will have an apex height of 2.8m, a length of 6.5m and width of 3.6m.. In addition, one side of the pitched roof will be south facing, for warmth (Mitchell-Jones, 2004). The roost will be located on the edge of the Proposed Development (within the roof void of Plot 99), with tree corridor links to the wider landscape and the entrances accessible from the unlit vegetated area of retained vegetation to the south. This provision will be agreed under EPS licence from Natural England, thereby ensuring delivery and maintenance in the long term.

6.3.3 Bat boxes/bricks/tiles

- 6.3.4 As compensation for the loss Building G, pipistrelle bats will be accommodated within the built development through inclusion of a range of built in bat bricks or tiles. These will be built into houses throughout the development, amounting to a minimum provision of suitable features on 15% of properties. This will provide self-contained (i.e. bats can only access within the brick/box/tile) alternative roosts, located on various building aspects providing a choice of potential roosting options. In addition to compensating for loss of Building G, this level of provision will also provide enhancement, particularly in combination with the use of hanging tiles on some building faces within the development (Omega, 2013), which are likely to naturally provide further roosting opportunities. This provision will be agreed under EPS licence from Natural England, thereby ensuring delivery and maintenance in the long term.
- 6.3.5 Trees within G51 (one confirmed roost and two trees with high potential to be used as roosts) will be retained, and therefore remain available as a resource in the future. However, it has not been possible to accommodate a vegetated corridor connecting these to the retained vegetation around the boundaries of the Site within the masterplan design. Therefore, to mitigate for any potential reduction in viability of these retained trees as roosts, nine bat boxes will be incorporated within retained habitat in the south west corner of the Site and on the western boundary. This will provide alternative roosting resource that is not within the built development. Boxes will be attached to existing trees that are currently of low potential to support roosts. Boxes will be installed in three groups of three boxes; thereby providing roosting opportunities on a variety of aspects. This provision will be agreed under EPS licence from Natural England, thereby ensuring delivery and maintenance in the long term.

6.3.6 Ponds

- 6.3.7 Two ponds are due to be incorporated as part of the Sustainable Urban Drainage Strategy (SUDS) for the Proposed Development. These have been sited adjacent to retained vegetation on the southern site boundary, and are anticipated to hold permanent standing water. Standing water attracts insects, and consequently these ponds will provide an alternative foraging resource for bats that is not currently available within the Site. The eastern SUDS pond is located adjacent to a confirmed tree roost, and in addition to providing foraging resource also buffers this roost from the built development. Native species will be used within pond marginal planting and planting of damp tolerant species in swales, for example species such as marsh marigold *Caltha palustris*, pendulous

sedge *Carex pendula*, meadowsweet *Filipendula ulmaria* and water mint *Mentha aquatic* (Omega, 2013).

- 6.3.8 The SUDS features, both ponds and swales are also likely to be of benefit for birds, providing foraging resources, for example water in close proximity to dense woody vegetation is identified within the UK species action plan for song thrush as particularly important for the conservation of this species.

6.3.9 Bird Boxes

- 6.3.10 Provision for swallows will also be incorporated within the built development, either through allowing access under eaves into utility buildings, or inclusion of up to ten exterior swallow cups beneath eaves. This provision aims to compensate for the loss of nesting resource within the existing barns on the Site.

6.3.11 Landscaping

- 6.3.12 The Proposed Development includes landscaped areas. These will accommodate formal recreational provision, informal play areas and also areas of amenity grassland, wild flower grassland and new hedgerow, native shrub and tree planting. Both the amenity and wildflower grassland will provide a foraging resource for species which currently forage within the pasture (e.g. bats, starling and song thrush). Wildflower grasslands will be left uncut through spring and summer to enable flowers to seed (Allen Pyke, 2013b). This will mean varied foraging opportunities are available, as a consequence of the diversity of grassland structure, including both mown amenity areas and longer grass. In addition, new hedgerow or shrub planting is proposed around the sports pitch and along the northern Site boundary. This planting will comprise native species, including berry bearing shrubs and species such as hazel, field maple, hawthorn, holly, dog rose *Rosa canina* and guelder rose *Viburnum opulus* (Omega, 2013). Consequently it will both provide a connective route for bats around the sports pitch and provide foraging resource for the existing bird community on the Site, compensating for minor hedgerow losses associated with unavoidable hedgerow breaches. Native species dominate the new planting within the landscaping proposals, constraining any non-native planting to formal housing areas (Allen Pyke, 2013a). Landscaping will therefore comply with HBC policy DM8 requirements to '*Provide new landscape works that integrate successfully with the local environment and existing natural features, using local materials and plant species*'.

6.3.13 Bridleway Enhancements

- 6.3.14 The public right of way network along the existing Site boundaries will be enhanced in association with the Proposed Development. One will be re-routed through the development, running adjacent to a retained hedgerow, enhanced with a buffer of wildflower meadow seeding and seasonal bulbs (Allen Pyke, 2013). In addition, the bridleway lying to the west and BOAT to the east will be enhanced where appropriate in association with the Proposed Development, for example with improved signage or surface as required, whilst ensuring the natural appearance and attraction of these is retained. These enhancements will ensure these facilities are able to accommodate increased recreational use as a consequence of the Proposed Development, and minimise the risk for people to widen and extend these routes, for example as a consequence of walking around boggy areas. This will be in accordance with HBC Policy CS11 aims to '*protect and where appropriate enhance the borough's....non-statutory designated landscape, habitats and features of biological, hydrological or geological interest*'.

6.4 Ecological Enhancement Measures

6.4.1 In accordance with national planning policy (NPPF, 2012) aims for the '*planning system to contribute to and enhance the national and local environment by.....providing net gains in biodiversity where possible*' the following enhancement measures will be incorporated within the Proposed Development:

- Nest boxes for swifts will be incorporated within the Proposed Development. These will comprise ten boxes across the development located beneath building eaves, at least 6-7m above the ground, with unrestricted access. As this species has been recorded over, but does not currently nest on the Site provision for this species would constitute enhancement;
- The level of bat tile/brick provision incorporated into the built development, in association with creation of features through use of hanging tiles over bricks as one fascia option will provide enhancement above and beyond compensation for roosting resource lost;
- Street trees will be incorporated within the Proposed Development, these will develop to provide mature tree stock in the long term, as the existing trees mature and die. They will also provide green 'stepping stones' within the built development, increasing its permeability to species such as birds, bats and invertebrates; and
- Hedgerows will be cut on a long rotation cycle, with trimming no more than every three to five years, with alternate sides trimmed each time. This will enable tall bushy growth to develop, providing enhancement where hedges are currently flailed.

7 Conclusion

- 7.1.1 The suite of ecological surveys completed at the Site concluded that the greatest value lies within the existing mature trees and hedgerows and the species these support. These hedgerows and scattered trees are considered of Local value, whilst other habitats present are considered of Negligible or up to Site value only. In addition, the Site is considered of District value for foraging bats, Local value for roosting bats and breeding birds, up to Site value for wintering birds and of negligible value for other legally protected species.
- 7.1.2 Several statutory and non-statutory sites have been identified within 2km (10km in the case of European designated sites) of the Site; due to the distance of these from the Site, the incorporation of recreational facilities within the Proposed Development and the adoption of measures that will increase capacity in pre-existing recreational resources, a significant effect upon these sites is not anticipated.
- 7.1.3 Ecology has been considered from the early stages of masterplan design; enabling the majority of mature trees and hedgerows to be retained and for appropriate mitigation and compensation measures to be incorporated within the Proposed Development.
- 7.1.4 Consequently, through the avoidance, mitigation, compensation and enhancement measures described within this report it is considered the proposals will be able to proceed in accordance with legislation and planning policy.

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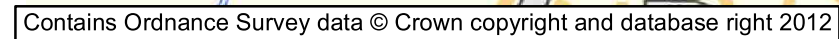
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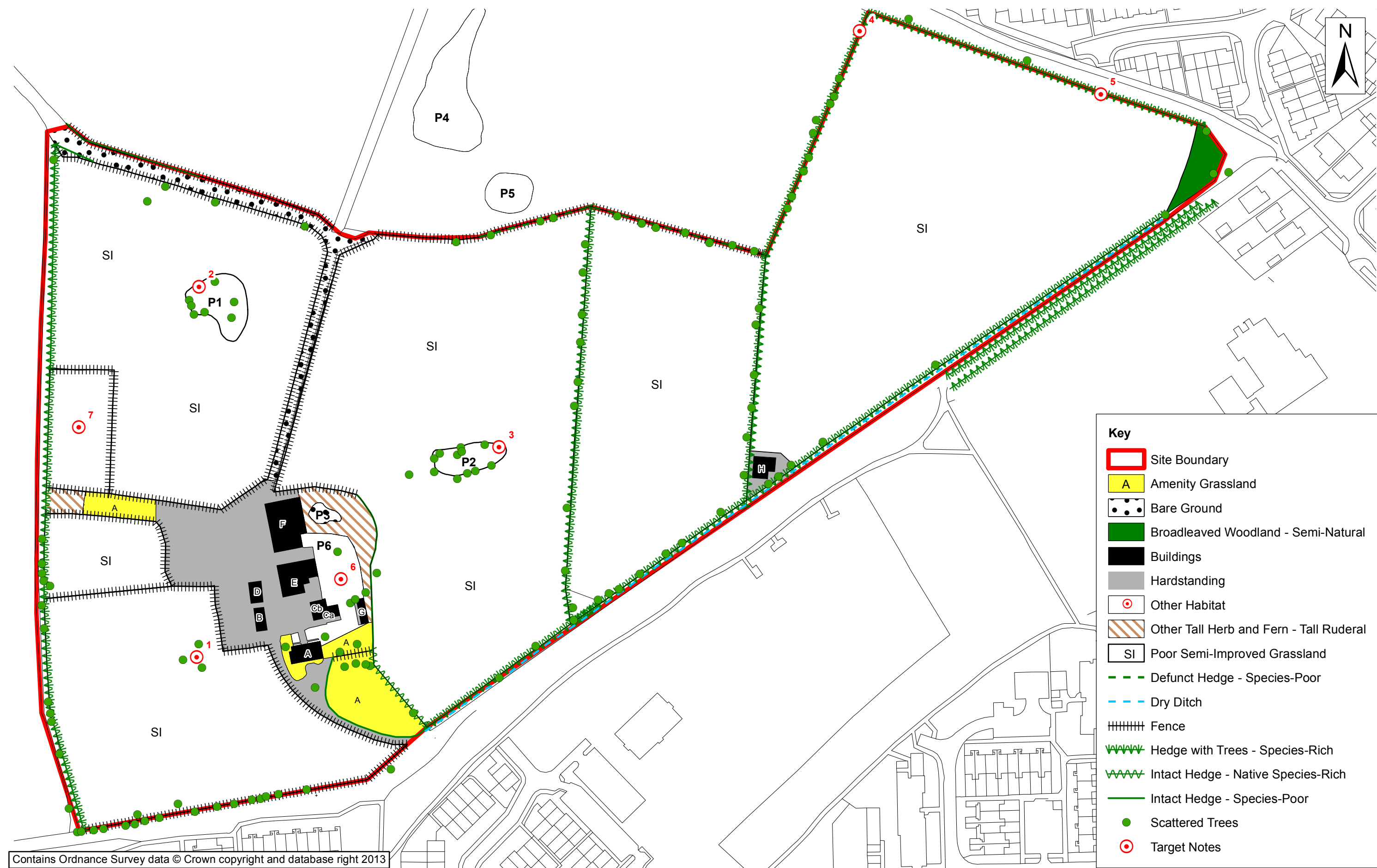
9 Figures

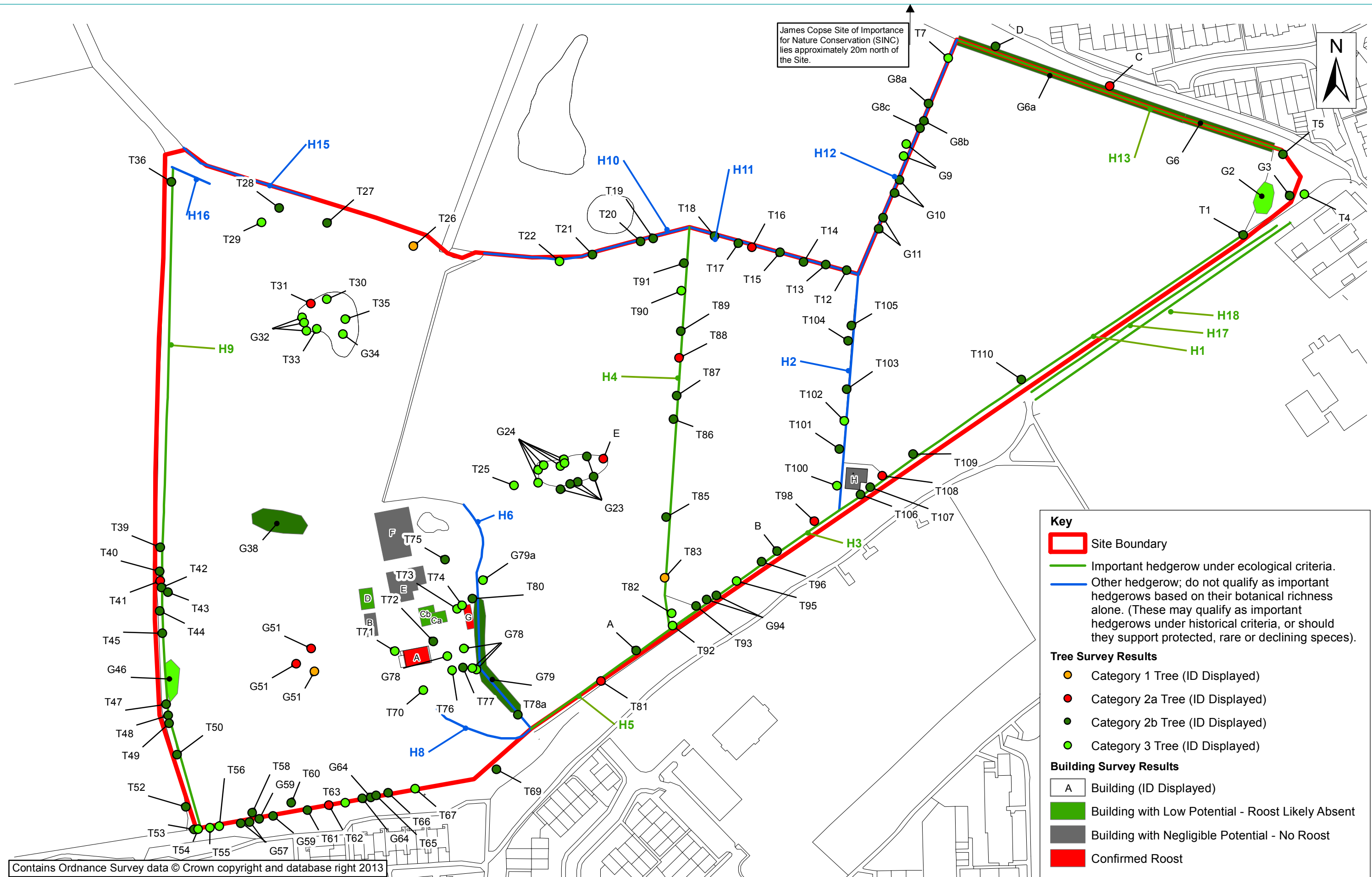
9.1 Figure 1 – Site Location Plan

9.2 Figure 2 – Phase 1 Habitat Plan

9.3 Figure 3 – Ecological Constraints







10 Appendices

10.1 Appendix A – Bat Reports

10.2 Appendix B – Dormouse Survey Report

10.3 Appendix C – Bird Survey Report

10.4 Appendix D – Great Crested Newt Habitat Suitability Assessment Report

10.5 Appendix E – Hedgerow Survey Report

10.6 Appendix F – Target Notes

- TN1. Cluster of three mature trees within the south western field containing features suitable to support roosting bats.
- TN2. Cluster of mature trees, some with features suitable for use by roosting bats, and one mature hawthorn tree.
- TN3. Cluster of mature trees within the central field with some features suitable for roosting bats;
- TN4. Dead mature tree; provides standing dead wood habitat for invertebrates.
- TN5. Pollarded dead tree.
- TN6. Garden
- TN7. Sand riding arena

10.7 Appendix G – Indicative Species List

common name	latin name	common name	latin name
field maple	<i>Acer campestre</i>	selfheal	<i>Prunella vulgaris</i>
creeping bent	<i>Agrostis capillaris</i>	cherry	<i>Prunus avium</i>
false oat grass	<i>Arrhenatherum elatius</i>	damson	<i>Prunus domestica</i>
cuckoopint	<i>Arum maculatum</i>	blackthorn	<i>Prunus spinosa</i>
daisy	<i>Bellis perennis</i>	bracken	<i>Pteridium aquilinum</i>
hard fern	<i>Blechnum spicant</i>	pedunculate oak	<i>Quercus robur</i>
hedge bindweed	<i>Calystegia sepium</i>	meadow buttercup	<i>Ranunculus acris</i>
pendulous sedge	<i>Carex pendula</i>	creeping buttercup	<i>Ranunculus repens</i>
sedge	<i>Carex spp.</i>	field rose	<i>Rosa arvensis</i>
common mouse-ear	<i>Cerastium fontanum</i>	dog rose	<i>Rosa canina</i>
enchanters nightshade	<i>Circaea lutetiana</i>	bramble	<i>Rubus fruticosus agg.</i>
creeping thistle	<i>Cirsium arvense</i>	broadleaved dock	<i>Rumex obtusifolius</i>
travellers joy	<i>Clematis vitalba</i>	weeping willow	<i>Salix alba</i>
field bindweed	<i>Convolvulus arvensis</i>	goat willow	<i>Salix caprea</i>
hazel	<i>Corylus avellana</i>	elder	<i>Sambucus nigra</i>
hawthorn	<i>Crataegus monogyna</i>	smooth sow thistle	<i>Sonchus oleraceus</i>
cypress	<i>Cupressus spp.</i>	common chickweed	<i>Stellaria media</i>
cocksfoot	<i>Dactylis glomerata</i>	dandelion	<i>Taraxacum agg.</i>
willowherb	<i>Epilobium spp.</i>	yew	<i>Taxus baccata</i>
beech	<i>Fagus sylvatica</i>	wood sage	<i>Teucrium scorodonia</i>
ash	<i>Fraxinus excelsior</i>	white clover	<i>Trifolium repens</i>
cleavers	<i>Galium aparine</i>	nettle	<i>Urtica dioica</i>
cut leaved cranesbill	<i>Geranium dissectum</i>	speedwell	<i>Veronica spp.</i>
herb robert	<i>Geranium robertianum</i>	roe deer	<i>Capreolus capreolus</i>
wood avens	<i>Geum urbanum</i>	badger	<i>Meles meles</i>
ground ivy	<i>Glechoma hederacea</i>	rabbit	<i>Oryctolagus cuniculus</i>
ivy	<i>Hedera helix</i>	greenfinch	<i>Carduelis chloris</i>
hogweed	<i>Heracleum sphondylium</i>	wood pigeon	<i>Columba palumbus</i>
yorkshire fog	<i>Holcus lanatus</i>	carrion crow	<i>Corvus corone corone</i>
holly	<i>Ilex aquifolium</i>	blue tit	<i>Cyanistes caeruleus</i>
perennial rye grass	<i>Lolium perenne</i>	great spotted woodpecker	<i>Dendrocopos major</i>
honeysuckle	<i>Lonicera periclymenum</i>	robin	<i>Erithacus rubecula</i>
common birds foot trefoil	<i>Lotus corniculatus</i>	chaffinch	<i>Fringilla coelebs</i>
scented mayweed	<i>Matricaria recutita</i>	swallow	<i>Hirundo rustica</i>
black medick	<i>Medicago lupulina</i>	great tit	<i>Parus major</i>
red bartsia	<i>Odontites vernus</i>	chiff chaff	<i>Phylloscopus collybita</i>
timothy	<i>Phleum pratense</i>	maggie	<i>Pica pica</i>
greater plantain	<i>Plantago major</i>	green woodpecker	<i>Picus viridis</i>
smooth meadow grass	<i>Poa pratensis</i>	wren	<i>Troglodytes troglodytes</i>
knotgrass	<i>Polygonum aviculare</i>	blackbird	<i>Turdus merula</i>

10.8 Appendix H – Legislation and Planning Policy

10.8.1 Legislation

Conservation of Habitats and Species Regulations 2010 (as amended)

10.8.2 European Protected Species (EPS) (including dormouse, great crested newt and all species of bat) are afforded a high level of protection under the Conservation of Habitats and Species Regulations 2010 (as amended) (the 'Habitat Regulations'), the legislation means that it is an offence to:

- deliberately capture, injure or kill an EPS;
- deliberately disturb wild EPS; *'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.'*
- damage or destroy a breeding site or resting place used by this species.

10.8.3 Due to the high level of protection afforded to EPS and their habitat, mitigation for these species is governed by a strict licensing procedure administered by Natural England (normally, planning permission must be obtained before a licence can be sought). Licencing is subject to three tests, as defined under the Habitats Regulations 2010, these must also be applied by the planning authority before granting permission for activities affecting EPS. For permission to be granted the following criteria must be satisfied:

- The proposal is necessary *'to preserve 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'*;
- *'There is no satisfactory alternative'*; and
- The proposals *'will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range'*.

Wildlife and Countryside Act 1981 (as amended)

10.8.4 Additional protection is afforded to species listed under the under the Habitat Regulations (EPS species) through the Wildlife and Countryside Act 1981 (as amended) with respect to disturbance whilst occupying places of rest or shelter and obstruction of places of rest or shelter.

10.8.5 The Wildlife and Countryside Act 1981, as amended by the Countryside and Rights of Way Act 2000, also provides legal protection to all birds, their nests and eggs, and it is an offence, with certain exceptions, to intentionally or recklessly kill or injure any wild bird, damage or destroy the nest of any wild bird while it is in use or being built, or destroy the egg of any wild bird. Species listed in Schedule 1 (Part 1) of the Act are protected from disturbance whilst nesting by special penalties.

The Protection of Badgers Act 1992

- 10.8.6 The Protection of Badgers Act 1992 makes it illegal to wilfully kill, injure or take any badger, or attempt to do so. It also makes it an offence to intentionally or recklessly damage, destroy or obstruct access to any part of a Badger sett.

Natural Environment and Rural Communities (NERC) Act 2006

- 10.8.7 Species of Principal Importance (SPI) for the Conservation of Biodiversity in England are listed under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. Under Section 40 of the NERC Act (2006) public bodies (including local planning authorities) have a duty to have regard for the conservation of SPI when carrying out their functions, including determining planning applications. These species are referred to where relevant within this report.

10.8.8 National Planning Policy

National Planning Policy Framework (2012)

- 10.8.9 At the national level the National Planning Policy Framework (2012) forms the basis for planning system decisions with respect to conserving and enhancing the natural environment, including great crested newts; the ODPM circular 06/2005 also provides supplementary guidance, including confirmation that *'the presence of a protected species is a material consideration when a planning authority is considering a development proposal'*.
- 10.8.10 The NPPF sets out, amongst other points, how at an overview level the *'planning system should contribute to and enhance the national and local environment by...*
- ...recognising the wider benefits of ecosystem services; and
 - minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures...
- 10.8.11 A list of principles which local planning authorities should follow when determining planning applications is included in the NPPF, and includes the following:
- *'- if significant harm resulting from a development cannot be avoided...adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*
 - *- ...opportunities to incorporate biodiversity in and around developments should be encouraged;*
 - *- planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland...unless the need for, and benefits of, the development in that location clearly outweigh the loss...'*

10.8.12 Local Planning Policy

Havant Borough Council Local Development Framework Core Strategy (Adopted March 2011)

- 10.8.13 HBC LDF Core Strategy contains several policies applicable to the ecology, and policy directly applicable to Woodcroft Farm as a strategic site; these are quoted below.

Policy CS11 Protecting and Enhancing the Special Environment and Heritage of Havant Borough

- 10.8.14 *'Planning permission will be granted for development that:*

-
1. Ensures the key landscape and built form principles set out in the Havant Borough Townscape, Landscape and Seascape Character Assessment are protected and where possible enhanced by partnership working with developers, groups and the wider community.
 2. Protects and where possible enhances the borough's statutory and non-statutory designated landscape, habitats and features of biological, hydrological or geological interest. Protection and enhancement will be achieved by appropriate adaptation and mitigation measures including wardening, education and information and the creation of new habitats, water bodies/courses planting of new trees and woodland.
 3. Has particular regard to the following hierarchy of nature conservation designations within the borough (as identified on the Proposals Map):
 - i. Special Protection Areas (SPA), Special Areas of Conservation (SAC) and Ramsar [International].
 - ii. Sites of Special Scientific Interest (SSSI) and National Nature Reserves [National].
 - iii. Sites of Importance for Nature Conservation (SINC), Local Nature Reserves (LNR), other Ancient Woodland not identified in (ii) above [Local].
 4. Protects and where appropriate enhances the borough's statutory and nonstatutory heritage designations by appropriately managing development in or adjacent to conservation areas, listed buildings, scheduled ancient monuments, historic parks and gardens, archaeological sites, buildings of local historic or architectural interest.
 5. Supports an ongoing programme of survey of habitats and species and designation of Sites of Importance for Nature Conservation.
 6. Incorporates partnership working with conservation organisations to improve public understanding of biodiversity and to manage public access to designated sites, particularly on the coast, to reduce harm to nature conservation interests.
 7. Incorporates partnership working with landowners and developers to ensure land management practices restore, enhance and where appropriate create new valued landscapes, habitats and their soil structure, particularly the ancient woodland remnants of the Forest of Bere and coastal salt marsh.
 8. Protects wildlife habitats and wildlife corridors to prevent the fragmentation of existing habitats and to allow species, for example Brent Geese, to respond to the impacts of climate change by making provision for habitat adaptation e.g. coastal managed realignment and species migration.
 9. Maintains undeveloped gaps between the settlements of Emsworth/Havant; Havant/Waterlooville; Havant/Portsmouth; Emsworth/Westbourne and Leigh Park/Rowlands Castle as shown on the Proposals Map.
 10. Protects the best and most versatile agricultural land that has the greatest potential for local food security.
 11. Responds to the emerging evidence from the Solent Disturbance and Mitigation Project, the published recommendations, and future related research.'

Policy CS13 Green Infrastructure

10.8.15 'Development will be permitted that:

1. Maintains and manages the network of green infrastructure identified at the sub regional and local levels.
2. Incorporates, where appropriate, improvements to existing green infrastructure through the restoration, enhancement or creation of additional resources.
3. Does not undermine the functional integrity of the green infrastructure.
4. Creates, where appropriate, new green infrastructure (including access management measures) either through on site provision or financial contributions.

10.8.16 *Development proposals that adversely affect green infrastructure will not be permitted unless superior alternative provision can be provided or where it is part of a service provider's plans to provide improved local services in equally accessible locations.*

10.8.17 *Green infrastructure sites will be allocated in the Development Delivery (Allocations) Plan.'*

Policy CS18 Strategic Site Delivery

10.8.18 *'The strategic sites are critical to achieving the Core Strategy vision. The council will permit development at the following strategic sites in accordance with the Development Requirements set out in the strategic site profiles:*

1. *Havant Public Service Village*
2. *Havant Thicket Reservoir*
3. *Dunsbury Hill Farm*
4. *Major Development Area and Waterlooville Town Centre Integration*
5. *Woodcroft Farm'*

10.8.19 *As described above within Policy CS18, Woodcroft Farm is a Strategic Site within the HBC Core Strategy, therefore the Core Strategy also contains a profile regarding the Site.*

Strategic Site Profile	
Site Location: Site 5	Woodcroft Farm
<i>Why is this site critical to achieving the Core Strategy vision?</i>	<i>This site is important in order to maximise regeneration opportunities in the Wecock Farm area of Waterlooville. In addition to this, the size of the site and the likely number of homes delivered is significant when considered against the overall housing target for the borough.</i>
<i>Type of development:</i>	■ Residential development (approximately 340 homes); ■ A larger site has been promoted to the neighbouring authorities of Winchester City Council and East Hampshire District Council. It is therefore possible that the overall site could be larger than just the component within Havant Borough Council's administrative area. This will be considered as part of the individual authorities' Local Development Frameworks. In total the entire site could deliver approximately 700 homes.
<i>Key site constraints:</i>	■ James Copse woodland adjacent to the site is a SINC; ■ There are some trees on the site covered by tree preservation orders; ■ The most appropriate access point will be through a school site and the principle for this has been established through negotiations with Hampshire County Council in relation to their partial disposal of the Meadowlands School site.
<i>Infrastructure:</i>	■ A bus route is adjacent to the site; ■ Improvements may be required to the nearby highway network.
<i>Development requirements:</i>	■ An Environmental Impact Assessment (EIA) leading to the production of an environmental statement is required in accordance with Schedule 2 of the Town and Country Planning Act (Environmental Impact Assessment) (England and Wales) Regulation 1999; ■ Development will have regard to the adjacent

	<i>SINC designation and include measures to prevent unnecessary or inappropriate disturbance that may result from residential development in this location;</i> ■ <i>Wider regeneration benefits should be identified and delivered;</i> ■ <i>Development will have regard to highway impacts beyond the immediate site;</i> ■ <i>Suitable provision of sports facilities/play space will be provided to offset access arrangements through Meadowlands school site;</i> ■ <i>Diversion of existing bridleway in order to aid management, child supervision and security of amended school site;</i> ■ <i>A flood risk assessment will be required as the site is over one hectare in size;</i> ■ <i>Meet relevant Code for Sustainable Home requirements and provide on site renewable energy provision;</i> ■ <i>Provision of a mixed community to include private market housing;</i> ■ <i>Tree loss as part of development (including to provide access) will be minimised and replacement compensatory planting will be provided on the site.</i>
<i>Delivery and phasing:</i>	<i>The owners of the site are keen to develop the site for housing purposes. Should the only viable access be that through the school site then the delivery of this site will be dependent on the project being progressed by Hampshire County Council in relation to releasing some of the adjacent Meadowlands School site. Positive discussions have been made to ensure access is possible and therefore the delivery of the site is considered to be achievable. The delivery of the section of land in the borough is not dependent on the delivery of further housing allocations on the potential extensions to the site identified in neighbouring authorities.</i>

10.8.20 The Core Strategy also contains a number of Development Management Policies, which ‘*must be used in conjunction with the strategic policies CS1 to CS21 when determining planning applications.*’ The purpose of these is to ‘*complement the strategic policies with locally relevant detail that is not found in national planning policy and regional planning policy.*’

Policy DM1 Recreation and Open Space

10.8.21 ‘*Development of existing open space, including play spaces, playing fields, pitches, courts and allotments, for alternative uses will only be permitted where the following criteria can be met:*

1. *It has been demonstrated that there is a surplus of provision according to the local standards set out in the council's Open Spaces Plan or any subsequent review of the plan; and*
2. *It has been demonstrated that the land cannot reasonably be converted to another type of open space for example green infrastructure for which the council's Open Spaces Plan has identified a deficit.*
3. *If the land has been identified within the South East Hampshire Coast Brent Goose Strategy (2002) as providing habitat for Brent Geese then it must be demonstrated that any impact on this habitat can be fully mitigated.*

10.8.22 or

10.8.23 Where there is no identified surplus of the original type of open space, contributions to new provision of an equivalent or improved standard, both in terms of quality and quantity, will be required in line with the council's Open Spaces Plan and developer contributions policy.’

DM8 Conservation, Protection and Enhancement of Existing Natural Features

10.8.24 *'Development will only be permitted where it protects and enhances local habitats and landscape distinctiveness and which addresses all of the relevant criteria as set out below:*

- 1. Protects natural features of nature conservation and/or amenity importance on the site, for example trees, woodlands, hedgerows, soils, streams, stream corridors, springs, ditches or ponds from damage, destruction and a deterioration in quality.*
- 2. Sympathetically incorporates existing features into the overall design of the scheme including measures taken to ensure their continued survival.*
- 3. Provides new landscape works that integrate successfully with the local environment and existing natural features, using local materials and plant species and making provision for future maintenance of new landscape works associated with new developments.*
- 4. Ensures sequences of greenspaces are maintained and protects the attractiveness and visual amenity of all green open spaces that contribute to the identity of the borough.'*

DM10 Pollution

10.8.25 Among other measures, the following is a criteria which must be met by development under Policy DM10:

- 5. 'External lighting is of the minimum level of illumination and duration required for security and operational purposes.'*

Havant Borough Council Strategic Housing Land Availability Assessment, Incorporating Housing Implementation Strategy. 5th Edition. November 2012.

10.8.26 Woodcroft Farm, described as open fields and a farmhouse, is listed within this document as a potential urban extension (UE9) of 10.5ha suitable for 320 dwellings. It is described as both Deliverable⁵ and Developable⁶, with the only constraints to development listed as TPOs and site assembly⁷.

Havant Borough Draft Core Strategy Habitat Regulations Assessment Screening Statement, Revision 2, June 2009.

CS15 Strategic Sites, Woodcroft Farm	• Butser Hill (SAC) • Kingsley Vale (SAC) • Chichester and Langstone • Harbours (SPA) • Chichester and Langstone • Harbours (Ramsar) • Solent Maritime (SAC)	Over the period of the Core Strategy it has been proposed that 700 (340 within the Havant Borough Council boundary) new homes may be located at the Woodcroft Farm Strategic Site. This associated development may have the following effects: • Need for Consumptive water abstraction • Water Quality - waste water production, • Recreational pressure and disturbance • Air pollution generated by additional traffic which could negatively affect all sensitive sites.
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⁵ 'A realistic prospect to provide housing within 5 years, where development is viable'.

⁶ 'In a suitable location and a there is a reasonable prospect the site is available and could be viably developed at the point envisaged'.

⁷ 'Could affect the timing for the availability of a site. For the site to be considered developable there has to be a reasonable likelihood that assembly would be possible and as such the site could be delivered at some point in the plan period'.

Habitat Regulations Assessment for the Havant Core Strategy, Appropriate Assessment Report, UE Associates, March 2010.

10.8.27 The Core Strategy AA (UE Associates, 2010) highlights Woodcroft Farm, as a strategic development site, as having the potential to have effects upon European designated sites through the following pathways:

- Increased air pollution; 'nitrogen deposition as a result of emissions from vehicles associated with residential and employment developments'
- Increased recreational disturbance: 'increasing recreational pressure from higher number of residents resulting from new housing and/or improved facilities'
- Increased water abstraction: 'increased abstraction for new residential (and office) developments'
- Increased waste water pollution: 'increased waste water production from new residential (and office) developments'.

10.8.28 The Core Strategy AA concludes that providing adequate avoidance and mitigation measures are adopted and implemented successfully (such as those listed within the assessment document), all negative effects of the Havant Core Strategy in relation to the conservation objectives of European sites can be effectively removed. In summary (please refer to the Core Strategy AA for full details), relevant recommended avoidance and mitigation measures to counter potential effects upon European sites resulting from the pathways listed above are shown in Table 2 below. Not all of these measures have been adopted and incorporated into the HBC core strategy, none have been adopted in entirety, those incorporated in part are shown in italics in Table 2. Whilst the Core Strategy AA makes recommendations for the avoidance of waste water pollution these are best practice measures and not considered to form part of the HRA avoidance and mitigation package and therefore are not included within Table 5.

Table 5 - Relevant Core Strategy avoidance and mitigation measures

Air Pollution (Core Strategy AA Table 5.3, UE Associates, 2010)	Policy based avoidance ■ Responding to the findings of further research; and ■ Joint working on strategic transport policy initiatives.
	On and off site mitigation ■ <i>Use of green infrastructure, both at source and receptor;</i> ■ European site habitat management; and ■ Provision of information/education.
Water Resources and Abstraction (Core Strategy AA Table 8.1 UE Associates 2010)	Policy based avoidance ■ <i>A number of measures to control location and design of new water infrastructure through the planning system;</i> ■ <i>Planning permission will be granted for developments provided that sufficient water supply, surface water drainage and foul drainage and sewage capacity already exist; or will be provided in time to service any phase of the development without unacceptably reducing the service provided to current users or causing harm to the environment.</i> ■ <i>Where there is a capacity problem and offsite improvements in infrastructure are not programmed, developers will be expected to requisition and otherwise fund infrastructure improvements.</i>
	On and off site mitigation None listed.
Disturbance from Recreation (Core Strategy AA Table 6.1 UE Associates 2010)	Policy based avoidance ■ <i>Strengthened policy ties to green infrastructure;</i> ■ <i>Responding to findings of further research; and</i> ■ <i>Off-site education.</i>
	On and off site mitigation A range of on-site shore based mitigation such as <i>wardening, landscape design and route design, architectural</i>

	design, education, parking control and charges, bye laws and control of strategic events; and a range of on-site water based mitigation such as <i>careful provision of facilities</i> , proactive work with clubs and groups, education, zoning, permitting, policing, bylaws and monitoring and scientific study.
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10.9 Appendix I – Reptile Scoping Response



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Our Ref: GEN/11/01295
Direct Line: (023) 9244 6513
Ask For: Mrs D Haywood
Email: planning.development@havant.gov.uk
17 November 2011

Dear Rosie

Site Address: Woodcroft Farm, Woodcroft Lane, Waterlooville, PO8 9QA

Proposed Development: Residential Development of circa 300 dwellings with associated open space and infrastructure.

I refer to your letter of the 14 September 2011 addressed to Mr Cantwell and your subsequent discussions with Mrs Haywood and her email concerning the above site.

I note that WSP Environmental are acting as ecological consultants for Grainger's proposed planning application for the Woodcroft Farm Site and have completed an extended Phase 1 survey of the Site, from which you recommended further surveys for dormice, hedgerows and bats, and these are underway.

The original request for a screening opinion submitted for the scheme (letter dated 14th June 2011 from Savills to Robyn Lyons) stated that reptile surveys would be undertaken at the site. Reptile surveys were also referenced within our subsequent screening opinion (letter dated 6th July 2011 from Julie Potter). However, following your extended Phase 1 survey you do not believe further reptile surveys are necessary in support of a planning application on the Site. This is due to the low suitability for reptiles of the habitats present. The Site comprises close grazed horse pastures, separated by hedgerows. The horse pastures do not provide suitable habitat for reptiles as the grazing intensity ensures a lack of cover. Similarly the hedges are of low suitability for reptiles. The hedgerows do not have an extensive field layer, or broad field margin, again due to grazing to the hedge base. Therefore, potential for reptile populations to be present is limited.

Hampshire County Ecologist has assessed the above and advises that:-

'the comments regarding the likelihood of findings reptiles in habitat of the type described as being present are correct. On the basis of this letter, I would agree that there seems to be little need to conduct a formal reptile survey. It may however be worth considering recommendations regarding a precautionary method of clearance if there is any chance that the odd transitory grass snake might be present.'

Therefore I confirm that in light of your habitat survey findings reptile surveys will not be requested, however, a precautionary method of clearance is recommended.

For your information I would advise that a small numbers of slow worms have been found on the school site to the south of the E-W bridleway. These were some distance from the main Woodcroft Farm site however, this information of the surrounding area may be useful.

Should you require any further information or wish to speak to the Officer dealing with your correspondence please Mrs Haywood quoting the above reference number.

Yours faithfully

A handwritten signature in black ink, appearing to read "C. D. Murray". The signature is fluid and cursive, with a small horizontal line at the end.

Mr Chris Murray
Service Manager (Planning Development)
Our Ref: GEN/11/01295

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