

Phase One Habitat Survey – West of Chichester

June 27

2013

As part of the Local Plan investigational work, the Environmental Management Team has conducted an Extended Phase 1 survey at the land to the south off Old Broyle Road, Chichester. The survey looks at the environmental impacts development would have on the West of Chichester site and wider landscape.

**Chichester
District
Council**

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Executive Summary

As part of the Local Plan investigational work, the Environmental Management Team has been commissioned to conduct an Extended Phase 1 survey at the land to the south off Old Broyle Road, Chichester.

The proposals are to allocate this site as a strategic housing location for 1000+ houses, combined with any associated infrastructure and facilities proposed.

The area surveyed is located on the western edge of Chichester. The site is of 5,776 ha and the boundary comprised Centurion way to the East, Old Broyle Road to the North, Clay Lane to the South. The western boundary consists of arable land, rear gardens from residential housing on Long Meadow and Salthill park.

The proposed strategic site contains the Local Natural Reserve (LNR) of Brandy Hole copse, above Old Broyle Road. There are also three areas of Ancient Woodland within, the site. Firstly on the western boundary and within the central area of the site and an area on Brandy Hole Copse LNR. As part of the work undertaken by Sussex Biodiversity Partnership, the entire site has been identified as a Biodiversity Opportunity Area (BOA). The site is also within close proximity to Chichester Harbour which has been designated as an Area of Outstanding Natural Beauty (AONB) and Special Area of Conservation. Due to the location of the site to these areas there is potential that development on this site may impact upon Chichester Harbour as a result of the increased number of residents and hence recreational access (including dog walking). These issues should be addressed as a separate study.

The site is potentially a key commuting corridor for wildlife and migrating birds moving from North to South and vice versa across the district. Further survey work on the wider green networks is required to determine the impact any development would have on protected species at a district level.

The key ecological features on site with regards to the proposed plans are the linear features throughout the site, the areas of ancient woodland and the tall ruderals and scrub vegetation. The habitats on site have potential for bats, dormice, reptiles, great crested newts, badgers, water voles and barn owls. Further survey work is required to accurately determine the presence of protected species on the site and any impact development would have on these species and the habitats.

These surveys include surveys for Bats, Great Crested Newts, Dormice, Water voles, Badgers, Reptiles, Wintering birds, Breeding birds including barn owls, Amphibians and Flora.

1 INTRODUCTION

1.1 The Environmental Management Team was commissioned by the Local Plan team, on behalf of Chichester District Council, to carry out an extended phase 1 survey at the site named 'West of Chichester' to the south of Old Broyle Road, Chichester and to report on the potential for onsite and offsite impacts on biodiversity and nature conservation interests.

1.2 The objectives of the survey were to

- Identify potential habitats of biodiversity and nature conservation importance;
- Identify the presence or potential presence of protected species and species of biodiversity and nature conservation importance.

1.3 The objectives of this report are to;

- evaluate the constraints that the presence of any habitat or species of biodiversity or conservation concern may place on the future development of the site;
- assess the potential for onsite and offsite impacts on biodiversity and nature conservation interests.

Study area

1.4 The area surveyed is located on the western edge of Chichester, West Sussex. The site is 5,776 ha and the boundary comprises Centurion way to the East, Old Broyle Road to the North and Clay Lane to the South. The western boundary consists of arable land, rear gardens from residential housing on Long Meadow and Salthill park.

1.5 The site comprises 10 large arable fields separated by hedgerow, scattered trees and ditches, 4 fields of semi improved neutral grassland, two areas of ancient woodland and includes the Local Nature Reserve (LNR), containing another area of ancient woodland.

1.6 The proposal development is for 1000+ houses with associated public amenity, infrastructure facilities and green space.

1.7 The central grid reference for the site is SU84977 05986 and the location of the site is shown in Figure 1.

2 METHODOLOGY

Desk Study

- 2.1 The desk study had two components. The first was to investigate records held by data holders about the sites, habitats and species and the second was to review the interim results from the green infrastructure mapping project commissioned by Chichester District Council for the District.

Information sought from data holders

- 2.2 The Sussex Biodiversity Records Centre (SxBRC) provided the District Council with information on important species and habitats within 2km of the site. This included designated sites and non-statutory sites such as Sites of Nature Conservation Interest (SNCIs). It also included Biodiversity Action Plan (BAP) species, protected species and rare species in Sussex, notable bird species and invasive / non-native species.
- 2.3 The SxBRC holds the records on behalf of specialist recording groups, for most taxa groups but does not hold records of Badger *Meles meles* and Otter *Lutra Lutra*. The website of Sussex Wetland Landscape Project (www.sussexotters.org) was examined for the latest information on potential colonisation of West Sussex by Otters and Chichester District Council badger records were also assessed.
- 2.4 Additional bird data for the tetrad (2km x 2km square) was sought from the website of the British Trust for Ornithology, the organisation that had co-ordinated the UK wide Bird Atlas 2007 – 2011 project.
- 2.5 Information on the statutory sites of nature conservation interest such as Sites of Special Scientific Interest (SSSIs), Special Protection Areas (SPAs) and Special Areas of Conservation (SACs) was drawn from the websites of the relevant statutory body and the Government GIS site 'MAGIC'.

Review of ecology surveys

- 2.6 A search was made for any green corridors which pass through / or are in the immediate vicinity of the area that have been identified within the Green Infrastructure Project undertaken by Forest Research UK.

Survey of the proposed development site

- 2.7 There were two components to the site survey – a Phase 1 Habitat Survey and a scoping survey for protected species or species of conservation concern.
- 2.8 A Phase 1 Habitat survey was undertaken by a suitably qualified ecologist Liz Rogers on 23rd April and 21st May 2011. The survey followed the standard methodology (JNCC, 2010). In summary, this comprised walking over the survey area and recording habitat types and boundary features present. Dominant plant species observed within each habitat type were recorded on a DAFOR scale. This classifies species as dominant, abundant, frequent, occasional or rare.
- 2.9 A protected species scoping survey was carried out at the same time as the above habitat survey. The site was assessed for its suitability to support protected species, in particular Badgers *Mergus meles*, Water Vole *Arvicola amphibius*, bats, birds, reptiles, Great Crested Newts *Triturus cristatus* (GCN), Dormice *Muscardinus avellanarius*, and other species of conservation importance that could pose a planning constraint.

Limitations

- 2.10 The SxBRC provides the following information about the limitation of its protected species records:
- “If there is no record of any particular protected species, this does not confirm that the species is absent from the site in question. It may mean that it has not been recorded, that the site has not been surveyed for this species, or that the Record Centre has not been informed of its presence.”*
- 2.11 The timing of the Phase 1 Habitat Survey was within the recommended survey period but as it was close to the beginning, it is possible that later flowering species might not have been visible and therefore not recorded during the survey. The grassland was also grazed in some areas by rabbits which made plant identification more difficult and therefore it is possible that some species may not have been recorded. Despite this, it is considered that the plant species recorded during the survey were sufficient to evaluate the biodiversity and nature conservation importance of the habitats present.
- 2.12 The species scoping survey does not assess the presence or absence of a species, but is used to assess the potential habitat to support them. Where a species is seen or there is clear and recent evidence of the presence of a species, this is reported.

3 RESULTS

Sites

3.1 The statutory and non-statutory sites identified within 2 km of the proposed development are listed in Table 1. The location of these designated sites is shown in Figure 2. Information on the size of the designated site and its features are taken from the relevant citations and distances calculated by GIS.

Table 1. Designated sites within 2 km of the site

Site name	Designation	Size	Distance from site	Designated Features
Chichester Harbour	Site of Special Scientific Interest SSSI	2695 ha	0.78km	The harbour is a large estuarine basin in which at low water, extensive mud and sandflats are exposed, drained by channels which unite to make a common exit to the sea. The site is of particular significance for wintering wildfowl and waders and also breeding birds both within the Harbour and in the surrounding permanent pasture fields and woodlands. There is a wide range of habitats which have important plant communities.
Solent Maritime	Special Area of Conservation SAC	11325 ha	0.78km	Sandbanks, estuaries, mudflats, coastal lagoons, annual vegetation of drift lines, perennial vegetation of stony banks, salicornia and other annuals colonising mud and sand.
Local Nature Reserve	Local Nature Reserve LNR	6 ha	0km	The site contains Brandy Hole Copse and East Broyle Copse. Habitats include broadleaved woodland, coniferous woodland, lowland heathland, tall herb and fern, bog and flush and open water. Pipistrelle bats on site.
Chichester and Langstone Harbours	Special Protection Area SPA and Ramsar Site	5810.03 ha	0.78km	The harbours are large sheltered estuarine basins comprising extensive mud and sand flats exposed at low tide. The site is of particular significance for over-wintering wildfowl and waders and also a wide range of coastal and transitional habitats supporting important plant and animal communities.
Chichester Canal	Site of Nature Conservation Importance (SNCI)	10.4 ha	1.5km	Since its abandonment in 1906 the Chichester canal has been relatively undisturbed. It has acquired a rich wildlife associated with its mosaic of open water, marginal vegetation, banks and bordering hedgerows. The reedbeds are of great importance, notably for birds.
Fishbourne Meadows	Site of Nature Conservation	8.4 ha	0.38km	This site consists of several meadows lying adjacent to Chichester Harbour SSSI. Although this permanent pasture appears to

	Importance (SNCI)			have been semi-improved with fertilisers there are some botanically interesting areas within it. Several locally uncommon plants are found. The site includes a chalk spring and derelict watercress beds
River Lavant Marsh	Site of Nature Conservation Importance (SNCI)	6.6 ha	1.5km	River Lavant Marsh consists of an embanked grazing marsh in the former estuary of the River Lavant. Across the embankment lies Fishbourne Channel, part of Chichester Harbour SSSI. The marsh which includes a small read bed and grazed marshy grassland is of great botanical and ornithological importance.

3.2 The West of Chichester Strategic Site lies within the Fishbourne and Chalk streams Biodiversity Opportunity Area. This is one of eight Biodiversity Opportunity Areas (BOAs) identified within the Chichester District Plan Area by the Sussex Biodiversity Partnership (www.biodiversitysussex.org.uk/landscapes/chichester-district). See figure 3 for map of BOAs and how the West of Chichester Strategic Site fits within the Fishbourne and Chalk Stream BOA.

Habitats

3.3 An inspection of the habitat inventories mapped on the Government GIS web site 'MAGIC' identified that the proposed development site has not been identified as a UK BAP priority habitat.

3.4 An inspection of the habitat inventories mapped on the Government GIS web site 'MAGIC' identified that within 2 km of the proposed development site there are present 4 types of habitat listed as UK BAP priority Habitats of Principle Importance for Biodiversity. These habitats and the closest distance from the proposed development site are listed in Table 2.

Table 2. Habitats of conservation status within 2km of the site

Habitat	Closest distance from site (m)	Conservation status
Ancient Woodland	0 on site	NERC, NPPF
Mudflats	150	Priority Habitat
Traditional Orchards	300	UKBAP
Deciduous Woodland	100	UKBAP
Biodiversity Opportunity Area	0 on site	None
Ponds	0 on site	UKBAP
Arable field margins	0 on site	UKBAP
Hedgerows	0 on site	UKBAP, Hedgerow Regulations 1997

NERC - Natural Environment and Rural Communities Act (2006)

NPPF – National Planning Policy Framework

UKBAP, UK Biodiversity Action Plan

Species

- 3.5 The records supplied by the SxBRC have been analysed and are summarised in Tables 3 to 4 and Table 5. The information presented in these tables has been restricted to those records made since 2000 in order to provide an up to date picture of species occurrence in the area.
- 3.6 In Tables 3, 4, 5, 6 it should be noted that the zero ('0') in the column 'Closest distance from site (m)' does not mean that the particular species was known to be present on the proposed development site. It means that there is an overlap between the site boundary and the recording unit used by SxBRC for each record – usually a 1,000 m by 1,000 m square defined by the OS grid. The actual observation could have been made at the proposed development site or it could have been made up to a kilometre away.
- 3.7 In Tables 3 to 4 and Table 5 it should be noted that the year of the most recent species record and the closest distance from the proposed development site will often relate to two different observations drawn from the records.

Plants

- 3.8 The plant species records (higher and lower plants) supplied by the SxBRC have been analysed and those that have a statutory conservation status and were recorded from 2000 onwards are listed in Table 3.

Table 3. Plant species with a statutory conservation status recorded within 2 km of the site

Common Name	Scientific Name	Recordings	Status
Divided Sedge	<i>Carex divisa</i>	4	IUCN vulnerable, NERC, SBAP, SRSIS, UKBAP
True Fox-edge	<i>Carex vulpina</i>	2	IUCN vulnerable, NERC, SBAP, SRSIS, UKBAP
Grape-hyacinth	<i>Muscari neglectum</i>	1	IUCN vulnerable, NERC, SBAP, UKBAP
Slender Hare's-ear	<i>Bupleurum tenuissimum</i>	1	IUCN vulnerable, NERC, SBAP, SRSIS, UKBAP
Shepherd's-needle	<i>Scandix pecten-veneris</i>	2	IUCN critically endangered, NERC, SBAP, SRSIS, UKBAP
Spreading Hedge-parsley	<i>Torilis arvensis</i>	4	IUCN endangered, NERC, SBAP, SRSIS, UKBAP
Bastard Blum	<i>Melittis melissophyllum</i>	2	IUCN vulnerable, NERC, SBAP, SRSIS, UKBAP

IUCN Critically Endangered (CR) – A taxon is Critically Endangered when it is considered to be facing an extremely IUCN high risk of extinction in the wild.

IUCN Endangered (EN) – Endangered when it is considered to be facing a very high risk of extinction in the Wild

IUCN Vulnerable (VU) – Vulnerable when it is considered to be facing a high risk of extinction in the Wild

NERC - Natural Environment and Rural Communities Act (2006)

SBAP - Sussex Biodiversity Action Plan

3.9 The SxBRC report has identified that a critically endangered (IUCN) plant Shepherd's needle *Scandix pectin-veneris* can be found in close proximity to the site. The Shepherd's needle is a member of the carrot family and has highly divided frizzy pinnate leaves and produces tiny white flowers arranged in umbels. The plant germinates between Oct – early Nov and flowers in May. The seeds are not able to stay dormant so the plant is at risk of local extinction during times of unsuitable habitat management.

The species has suffered a precipitous decline and is now restricted to the south and east of England. This is as a result of agricultural changes, including the use of chemical fertilisers and herbicides, changes in crop rotation practices, loss of field margins and the introduction of highly competitive crops. The plant is also a UK Biodiversity Action Plan (UKBAP) priority species. The aim of this plan is to maintain the current range of plant and to aid the re-colonisation of former sites.

Birds

3.10 Table 4 below illustrates the species which have been recorded within grid square SU84959 and the surrounding 2km buffer in every direction. The data has been obtained from the Bird Atlas 2007-11 that is available on the BTO website. Note that some rare species cannot be mapped at the local level in breeding season.

Table 4: Species list for all months for SU 849059 at grid ref SU8490 and surrounding 2km buffer squares

Species	2009	2010	2011	2012	2013
Mute swan					
Barnacle Goose					
Mallard	Yes				Yes
Red-legged partridge	Yes			Yes	
Grev Partridge				Yes	
Pheasant	Yes			Yes	Yes
Indian Peafowl				Yes	
Cormorant				Yes	
Marsh Harrier	Yes	Yes			
Sparrowhawk	Yes				Yes
Buzzard	Yes	Yes	Yes	Yes	Yes
Kestral	Yes		Yes		Yes
Moorhen	Yes				Yes
Lapwing	Yes				

Jack Snipe				Yes	
Whimbrel	Yes				
Black-headed Gull	Yes			Yes	
Common Gull	Yes				
Lesser Black-lacked Gull				Yes	
Herring Gull	Yes			Yes	
Feral Pigeon					Yes
Stock Dove					Yes
Woodpigeon	Yes			Yes	Yes
Collared Dove	Yes			Yes	Yes
Cuckoo				Yes	
Green woodpecker	Yes			Yes	Yes
Great Spotted Woodpecker	Yes			Yes	Yes
Magpie	Yes			Yes	Yes
Jay	Yes			Yes	Yes
Jackdaw	Yes			Yes	Yes
Rook				Yes	
Carrion Crow	Yes	Yes		Yes	Yes
Goldcrest	Yes				Yes
Blue tit	Yes			Yes	Yes
Great tit	Yes			Yes	Yes
Coal tit	Yes			Yes	
Skylark	Yes			Yes	Yes
Swallow				Yes	
House martin					
Long-tailed tit	Yes				Yes
Chiffchaff				Yes	
Backcap	Yes			Yes	
Garden Warbler					
Waxwing		Yes	Yes		Yes
Nuthatch	Yes			Yes	Yes
Treecreeper	Yes				
Wren	Yes			Yes	Yes
Starling	Yes			Yes	Yes
Blackbird	Yes			Yes	Yes
Fieldfare	Yes			Yes	Yes
Son Trush	Yes			Yes	Yes
Redwing	Yes			Yes	
Mistle Trush	Yes				
Robin	Yes			Yes	Yes
Pied Flycatcher		Yes			
Wheatear		Yes			Yes
Dunnock	Yes			Yes	Yes
House sparrow	Yes				
Yellow wagtail		Yes			
Pied/white wagtail	Yes				
Pied Wagtail (yarrellii)	Yes				Yes
Meadow pipit	Yes				

Chaffinch	Yes			Yes	Yes
Brambling	Yes				
Greenfinch	Yes			Yes	
Goldfinch	Yes			Yes	Yes
Siskin	Yes				
Linnet	Yes			Yes	Yes
Bullfinch	Yes			Yes	Yes
Yellowhammer	Yes			Yes	Yes
Reed Bunting	Yes				
Totals	52	7	3	42	37

3.11 Table 5 illustrates the records of notable bird species with 2km of the site. The records provided by SxBRC illustrate birds which are particularly scarce or vulnerable to development.

Table 5: Notable bird report

Common Name	Scientific Name	Number recorded	Status
Eurasian Wigeon	<i>Anas penelope</i>	2	BRA2.1, CMSA2, ECCAC
Gadwall	<i>Anas strepera</i>	8	Amber, BDA2.1, CMSA2
Common Pochard	<i>Aythya ferina</i>	1	Amber, BDA2.1, CMSA2
Grey Partridge	<i>Perdix perdix</i>	8	Red, BDA2.1, ESTS, NERC, UKBAP
Little Egret	<i>Egretta garzetta</i>	101	BCA2.1, Amber, DDA1, ECCAA
Grey Heron	<i>Ardea cinerea</i>	11	
Red Kite	<i>Milvus milvus</i>	4	Amber BDA1. CMSA2, ECCA4, W&CSch1
Eurasian Hobby	<i>Falco subbuteo</i>	8	BCA2, CMSA2, ECCAA, W&CSch1
Peregrine Falcon	<i>Falco peregrinus</i>	290	BCA1, BDA1, CMSA2, W&CSch1
Little Plover	<i>Charadrius dubius</i>	1	Amber, SCA2, cmsa2, w&cSch1
Northern Lapwing	<i>Vanellus vanellus</i>	74	Red, BDA2.2, CMSA2, ESTS, NERC, UKBAP
Common Snipe	<i>Gallinago gallinago</i>	2	Amber, SDA2.1, CMSA2
Black-tailed Godwit	<i>Limosa Limosa</i>	1	Red, BDA2.2, CMSA2, UKBAP, W&CSch1
Eurasian Curlew	<i>Numenius arquata</i>	107	Amber, BDA2.2, CMSA2, NERC, UKBAP
Common Redshank	<i>Tringa totanus</i>	122	Amber, BSA2.2, CMSA2, ESTS
Mediterranean Gull	<i>Larus melanocephalus</i>	3	BCA2, Amber, BDAA1, CMSA2, W&CSch1
Barn Owl	<i>Tyto alba</i>	28	BCA2, Amber, ECCAA, W&CSch1
Common Swift	<i>Apus apus</i>	138	Amber
Common Kingfisher	<i>Alcedo atthis</i>	8	BCA2, Amber, BDA1, W&CSch1
House Martin	<i>Delichon urbicum</i>	76	BCA2, amber

Yellow Wagtail	<i>Motacila flava</i>	1	BCA2, Red, ESTS, UKBAP
Cetti's Warbler	<i>Cettia cetti</i>	18	W&CSch1
Firecrest	<i>Regulus ignicapilla</i>	5	BCA1, Amber, W&CSch1
Willow tit	<i>Poecile montanus</i>	1	BCA1, Red, UKBAP
Common Raven	<i>Corvus corax</i>	1	
Corn Bunting	<i>Emberiza calandra</i>	33	Red, ESTS, UKBAP

Key

Red – Birds of Conservation Concern 3 (2009) - Globally threatened

Amber – Birds of Conservation Concern 3 (2009) – Unfavourable Conservation Status

BCA1 – Bern Convention Appendix 1

BCA2 – Bern Convention Appendix 2

CMSA2 – Convention on Migratory Species Appendix 2

BDA1 – Birds Directive Annex 1

BDA2.2 - Birds Directive Annex 2.2

W&CSch1 – Wildlife and Countryside Act (1981) Schedule 1

NERC – Natural Environmental and Rural Communities Act (2006) Species of Importance in England

UKBAP- UK Biodiversity Action Plan

ESTS – Environmental Stewardship Target Scheme

The results from the notable bird records provided by the SxBRC includes a number of the Birds of Conservation Concern Red list species, which are species that are of the highest conservation concern. These species are looked at in further detail below.

13.12 The Northern Lapwing *Vanellus vanellus* is a familiar wader of open farmland, with its black and white plumage, iridescent green and purple back and wispy crest. The lapwing has undergone a massive decline in numbers in the last 20 years, with a 49% reduction between 1987 and 1998. It is found throughout Britain, with the highest numbers occurring in central and southern Britain. Some lapwings are resident, but some migrate from Germany, Scandinavia, Denmark and Holland during the winter. Lapwings inhabit open farmland with a strong preference for mixed farms that have large areas of arable land or grassland as well as unimproved grassland. Lapwings are included within the Birds of Conservation Concern Red list (highest conservation concern) and classed as a priority species within the UKBAP. Lapwing is one of the most strongly declining bird species in Europe, having decreased in all regions since 1980. The 2009 IUCN review moved this species from amber to the UK red list, for which it qualifies on the strength of its UK decline. There is good evidence that the decline in population is from habitat loss and degradation due to changes in agricultural practices, drainage of grasslands and loss of mixed farmland, which have led to breeding productivity dropping below a sustainable level. It is likely that the arable farmland on the site would be suitable habitat for Northern Lapwing which are residents to the UK but also migrate to the area over the winter.

13.13 The Willow Tit *Poecile montanus* is between a blue and great tit in size with no yellow, green or blue. It has a large sooty-black cap extending to the back of the neck and a small untidy black bib. The Willow Tit can be found in well-structured woodland and mature scrub

habitats that are often but not always wet, with a good proportion of standing rotten wood and a well development shrub layer within the wood. Willow tits have been in decline since the mid-1970s and have become locally extinct in an ever growing number of former habitats. The continuing decline through the 1990s has caused the species to be upgraded within the Birds of Conservation Concern classification from the amber list to the red list (highest conservation concern). Willow Tits have declined in woodland, due largely to habitat degradation. This ancient woodland and coppiced woodland within the site would be suitable habitat for this species.

- 13.14 The Black-tailed Godwit *Limosa Limosa* is a large wading bird, with a distinctive long beak and legs and black and white stripes on their wings. The Black-tailed Godwit prefers muddy estuaries and coastal lagoons with fine sediments. The Black-tailed Godwit is included within the Birds of Conservation concern red list (high conservation concern) and is listed as a UK species of conservation Importance and a species of European Conservation Concern. It is also listed under Schedule ii of the EC bird directive and is classified as near threatened. This species is threatened mainly in Europe and in the UK, Special Protection Areas (SPAs) have been designated in order to protect this and other internationally important birds. The EU has devised a Management Action Plan for the species and monitoring of the birds population is underway to illustrate the factors which affect this species. The site may provide resting spots for this species, but also the species will be using Chichester Harbour for breeding and feeding so recreational disturbance should be considered in relation to this species.
- 13.15 The Yellow Wagtail *Motacila flava* is a slender, long tailed, long legged bird which is most often seen walking on ground near water courses with the tail wagging fervently. The Yellow Wagtail can be found in damp or wet habitats with low vegetation, from rushy pastures, meadows, hay fields and marshes to damp steppe and grassy tundra. Britain holds almost the entire population of the distinctive Yellow Wagtail, so population changes in the UK are of global conservation significance. They have been in decline since the early 1980s and after a shift from the green to amber Birds of Conservation Concern list in 2002, the species have now been moved to the red list. The cause of this decline is due to agricultural intensification. This species is likely to use the site for resting and feeding so consideration should be given to the impact development may cause to the species.
- 13.16 The Grey Partridge *Perdix perdix* is a game bird in the pheasant family Phasianidae. The Grey Partridge breeds on farmland across most of Europe and into western Asia. Though common and not threatened, the population appears to be declining in numbers in some

areas of intensive cultivation in Britain. This decline is largely due to the loss of breeding habitat and food supplies. The numbers have fallen in some areas by as much as 85% in the last 25 years. The species is also a UK Biodiversity Action Plan (UKBAP) priority species. The aim of this plan is to maintain the current range of grey partridge and to aid in the conservation of its habitat.

Invertebrates

- 3.17 Table 6 illustrates the records of invertebrates with 2km of the site. The records provided by SxBRC illustrate invertebrates which are particularly scarce or vulnerable to development.

Table 6 BAP species inventory for invertebrates

Common Name	Scientific Name	Number recorded	Status
Stag Beetle	<i>Lucanus cervus</i>	27	HDA2, NERC, SBAPS, SRSIS, UKBAP, W&CSch5
White Admiral	<i>Limenitis camilla</i>	5	IUCN- vulnerable, NERC, SBAP, UKBAP
Small heath	<i>Coenonympha pamphilus</i>	2	IUCN lower risk, NERC, SBAP, UKBAP
Ghost moth	<i>Hepialus humuli</i>	1	NERC, SBAP, UKBAP
Large Gold Case-Bearer	<i>Coleophora vibicella</i>	1	NERC, SBAP, SRSIS, UKBAP
Lackey	<i>Malacosoma neustria</i>	2	NERC, SBAP, UKBAP
Oak Hook-tip	<i>Watsonalla binaria</i>	5	NERC, SBAP, UKBAP
Small Emerald	<i>Hemistola chrysoprasaria</i>		NERC, SBAP, UKBAP
Small Emerald	<i>Henistola chrysoprasaria</i>	2	NERC, SBAP, UKBAP
False Mocha	<i>Cyclophora porata</i>	1	NERC, SBAP, UKBAP
Blood Vain	<i>Timandra comae</i>	4	NERC, SBAP, UKBAP
Mullein Wave	<i>Scopula marginepunctata</i>	2	NERC, SBAP, UKBAP
Dark-barred Twin-spot carpet	<i>Xanthorhoe ferrugata</i>	4	NERC, SBAP, UKBAP
Spinach Moth	<i>Eulithis mellinata</i>	2	NERC, SBAP, UKBAP
Small Phoenix	<i>Ecliptopera silaceata</i>	3	NERC, SBAP, UKBAP
Pretty Chalk Carpet	<i>Melanthia procellata</i>	3	NERC, SBAP, UKBAP
Latticed Heath	<i>Chiasmia clathrata</i>	2	NERC, SBAP, UKBAP
August thorn	<i>Ennomos quercinaria</i>	1	NERC, SBAP, UKBAP
Dusky Thorn	<i>Ennomos fuscantaria</i>	4	NERC, SBAP, UKBAP
Brindled Beauty	<i>Lycia hirtaria</i>	1	NERC, SBAP, UKBAP
Figure of Eight	<i>Diloba caeruleocephala</i>	1	NERC, SBAP, UKBAP
Garden Tiger	<i>Arctia caja</i>	2	NERC, SBAP, UKBAP

White Ermine	<i>Spilosoma lubricipeda</i>	5	NERC, SBAP, UKBAP
Buff ermine	<i>Spilosoma luteum</i>	2	NERC, SBAP, UKBAP
Cinnabar	<i>Tyria jacobaeae</i>	4	NERC, SBAP, UKBAP
Garden Dart	<i>Euxoa nigricans</i>	2	NERC, SBAP, UKBAP
Double Dart	<i>Graphiphora augar</i>	1	NERC, SBAP, UKBAP, SRSIS
Small Square-spot	<i>Diarsia rubi</i>	2	NERC, SBAP, UKBAP
Dot moth	<i>Melanchra persicariae</i>	2	NERC, SBAP, UKBAP
Feathered Gothic	<i>Tholera decimalis</i>	4	NERC, SBAP, UKBAP
Powdered Quaker	<i>Orthosia gracilis</i>	2	NERC, SBAP, UKBAP
Shoulder-striped Wainscot	<i>Mythimna comma</i>	2	NERC, SBAP, UKBAP
Striped lychnis	<i>Shargacucullia lychnitis</i>	1	NERC, SBAP, UKBAP, SRSIS
Minor Shoulder-knot	<i>Brachylomia viminalis</i>	1	NERC, SBAP, UKBAP
Green-brindled Crescent	<i>Allophyes oxyacanthae</i>	2	NERC, SBAP, UKBAP
Brown-spot Pinion	<i>Agrochola litura</i>	1	NERC, SBAP, UKBAP
Beaded Chestnut	<i>Agrochola lychnidis</i>	2	NERC, SBAP, UKBAP
Centre-barred sallow	<i>Atethemia centrargo</i>	2	NERC, SBAP, UKBAP
Sallow	<i>Xanthia icteritia</i>	2	NERC, SBAP, UKBAP
Dusky-lemon sallow	<i>Xanthia gilvago</i>	2	NERC, SBAP, UKBAP, SRSIS
Knot grass	<i>Acrpmocta rumicis</i>	2	NERC, SBAP, UKBAP
Mouse Moth	<i>Amphyipyra tragopoginis</i>	4	NERC, SBAP, UKBAP
Dusky Brocade	<i>Apamea remissa</i>	2	NERC, SBAP, UKBAP
Large nutmeg	<i>Apamea anceps</i>	1	NERC, SBAP, UKBAP
Rosy Minor	<i>Mesoligia literosa</i>	2	NERC, SBAP, UKBAP
Ear Moth	<i>Amphipoea oculatea</i>	2	NERC, SBAP, UKBAP
Rosy Rustic	<i>Hydracecia micacea</i>	2	NERC, SBAP, UKBAP
Crescent	<i>Celaena leucostigma</i>	2	NERC, SBAP, UKBAP, SRSIS
Rustic	<i>Hoplodrina blanda</i>	4	NERC, SBAP, UKBAP
Mottled Rustic	<i>Caradrina morpheus</i>	4	NERC, SBAP, UKBAP

3.18 Reviewing the records produced from the desk study and the data gained from the SxBRC, there are three species which are of most concern.

3.19 The small heath *Coenonympha pamphilus* butterfly can be found in many different habitats, especially open grassland, heathland, railway embankments, disused quarries, meadows and sand dunes. It occurs only sparingly in woodland where it can be found in ones and twos along wide woodland rides. This butterfly has shown severe decline over the long term and

is therefore a priority species for conservation efforts. There may be suitable habitat on site for this species and habitat enhancement should take into consideration their requirements.

3.20 The second butterfly identified is the White Admiral *Limenitis Camilla* which is predominately a woodland species found in central and southern England. The distribution of this species has declined since the early 1900's. The woodland butterfly is found in deciduous woods, but also has been sighted in conifer plantations where Honeysuckle is available. This species has shown worrying declines in terms of distribution and population at monitored sites and is therefore a priority species for conservation efforts. The species has been identified by the IUCN as vulnerable and is included within the UK's Biodiversity Action Plan. There may be suitable habitat on site for this species and habitat enhancement should take into consideration their requirements.

3.21 The stag beetle *Lucanus cervus* has also been recorded within close proximity to the site. The stag beetle is the UK's largest terrestrial beetle reaching 7cm in length. Larvae develop in decaying tree stumps and fallen timber of broad-leaved trees in contact with the ground, especially of apple *Malus* spp., elm *Ulmus* spp., lime *Tilia* spp., beech *Fagus sylvatica* and oak *Quercus* spp. This timber is an essential feature for conservation of structure and function of the habitat for this species. In the UK, stag beetles are restricted mainly to the south and south-east of England. It is listed as a Nationally Scarce Category B and is listed as a priority species under the UK Biodiversity Action Plan (UK BAP) and is included in English Nature's Species Recovery Programme. The stag beetle is also protected under Schedule 5, Section 9.5 of the Wildlife and Countryside Act 1981. It is likely that stag beetles may be found in the standing deadwood on the site and this will need to be considered.

Mammals

3.22 The mammal species records supplied by the SxBRC have been analysed and those that have a statutory conservation status and were recorded from 2000 onwards are listed in Table 7.

Table 7. Mammal species with a statutory conservation status recorded within 2km of the site

Common Name	Scientific Name	Number recorded	Status
Water vole	<i>Arvicola europaeus</i>	13	W&CSch5; UKBAP; NERC41
Serotine bat	<i>Eptesicus serotinus</i>	14	HDirAIV; HRegSch2 W&CSch5;
Bechstein's bats	<i>Myotis bechsteinii</i>	1	HDirAll; HRegSch2 W&CSch5; NERC41;

Bat sp.	<i>Chiroptera</i>	25	HDirAIV; HRegSch2 W&CSch5;
Common Pipistrelle (5kHz)	<i>Pipistrellus pipistrellus</i>	20	HDirAIV; HRegSch2 W&CSch5;
Brown long eared bat	<i>Plecotus auritus</i>	11	HDirAIV; HRegSch2; W&CSch5; UKBAP; NERC41;
Daubenton bat	<i>Myotis daubentonii</i>	16	HDirAIV; HRegSch2; W&CSch5;
Grey long eared bat	<i>Plecotus austriacus</i>	2	HDirAIV; HRegSch2; W&CSch5; UKBAP; NERC41;
Lesser Noctule bat	<i>Nyctalus leisleri</i>	3	HDirAIV; HRegSch2; W&CSch5; UKBAP; NERC41;
Natterer's bat	<i>Myotis blythii</i>	17	HDirAIV; HRegSch2; W&CSch5; UKBAP; NERC41;
Pipistrelle sp.	<i>Pipistrellus</i>	39	HDirAIV; HRegSch2 W&CSch5;
Soprano pipstrelle (55 kHz)	<i>Pipistrellus pygmaeus</i>	76	HDirAIV; HRegSch2 W&CSch5;
Unidentified bat	<i>Myotis</i>	4	HDirAIV; HRegSch2 W&CSch5;
Western barbastelle	<i>Barbastella barbastellus</i>	1	HDirAIV; HRegSch2; W&CSch5; UKBAP; NERC41;
Whiskered Bat	<i>Myotis mystacinus</i>	2	HDirAIV; HRegSch2; W&CSch5; UKBAP; NERC41;
Whiskered/Brandt's/Alcathoe Bat	<i>Myotis mystacinus/brandtii</i>	1	HDirAIV; HRegSch2; W&CSch5; UKBAP; NERC41;
Tentacle lagoon worm	<i>Alkmaria romijni</i>	1	W&CSch5
Great crested Newt	<i>Triturus cristatus</i>	6	HDirAll; HRegSch2; W&CSch5;
Slow Worm	<i>Anguis fragilis</i>	19	W&CSch5, NERC, SBAP, UKBAP
Common Lizard	<i>Zootoca vivipara</i>	10	W&CSch5, NERC, SBAP, UKBAP
Common Toad	<i>Bufo bufo</i>	14	W&CSch5, NERC, SBAP, UKBAP
Grass snake	<i>Natrix natrix</i>	7	W&CSch5, NERC, SBAP, UKBAP
Adder	<i>Vipera berus</i>	2	W&CSch5, NERC, SBAP, UKBAP,
Hazel dormouse	<i>Arvicola terrestris</i>	1	HDirAIV; HRegSch2; W&CSch5; UKBAP; NERC41;
Brown Hare	<i>Lepus europaeus</i>	1	NERC, SBAP, UKBAP

Key:

HDirAll - Habitats Directive Annex II;

HDirAIV - Habitats Directive Annex IV;
HRegSch2 - The Conservation of Habitats and Species Regulations 2010 Schedule 2 European Protected Species - animals;
W&CSch5 - Wildlife and Countryside Act 1981 Schedule 5 Protected animals;
NERC41 - Species of principal importance in England listed under Section 41 of the Natural Environment and Rural Communities Act 2006;
UKBAP - UK Biodiversity Action Plan priority species.

- 3.23 The most recent overview of the presence/absence of Otters in Sussex, provided by the Sussex Wetland Landscapes Project, is reproduced below (Sussex Biodiversity Record Centre, 2012).

‘There are still no confirmed reports of any resident otter populations in the County, although there have been clusters of unconfirmed sightings of possible transient animals on the river Adur and the river Cuckmere. A survey of 42 kilometres of the Western Rother river, the most likely ‘in migration’ route for otters into Sussex from neighbouring Hampshire, revealed no confirmed otter signs, although one or two frustratingly inconclusive photos’.

Habitats Survey

- 3.24 The results of the Phase 1 Habitat survey are presented in Figure 4.

Semi Improved Neutral Grassland

- 3.25 Within the site there is a large amount of scrub land which is split in the majority between four fields, located at target points 35, 33, 26, 30. These areas have been left to develop into semi improved neutral grassland with a wide variety of vegetation. The dominant grass vegetation within these areas are Timothy *Phleum pratense*, Yorkshire-fog *Holcus lanatud* and Italian Ryegrass *Lolium multiflorum*.
- 3.26 The grassland in the southern most point of the site at target note 30 has a variety of wild flowers present including a number of orchids. Orchid species include the Early Purple Orchid *Orchis mascula*, Southern March Orchid *Dactylorhiza praetermissa* and the Common Spotted Orchid *Dactylorhiza fuchsia*. The other notable species of wildflower recorded include Red Clover *Trifolium pratense* and Zigzag Clover *Trifolium medium* which are common within all the rough grassland. Other recorded species include Drawf Thistle *Cirsium acaule*, Groundsel *Senecio vulgaris*, Scentless Mayweed *Tripleurospermum inodorum*, Pale Toadflax *Linaria repens* and Agrimony *Agrimonia eupatoria*.

Arable

- 3.27 The remaining fields within the site as classified within figure 4 are used for agriculture and are intensively managed. During the first site visit the first shoots were starting to appear within these fields and by the second site visit in May these shoots were established.

Trees

- 3.28 There is a variety of tree habitats on the site, with most field boundaries defined using scattered tree lines.

Ancient woodland

- 3.29 There are three areas of ancient woodland within the site. The first area is found within the Local Nature Reserve, Brandy Hole Copse. This area of ancient woodland wraps around the coppiced woodland within the reserve, with an ancient monument within the woodland.
- 3.30 The second area of ancient woodland is found to the west of the site at target note 19, bordering arable fields to the east. The ancient woodland links the north and south areas of the site and runs along the western boundary, acting as a wildlife corridor.
- 3.31 The third area of ancient woodland is found within the central area of the site at target note 20. This area is bordered to the west by an arable field and to the east and south by areas of semi natural improved grassland.

Plantation and Copse

- 3.32 The woodland to the north-west of the site and within the Local Nature Reserve consists of sweet chestnut *Castanea sativa*. Within the Local Nature Reserve the woodland is managed and coppiced by Chichester District Council on a 15 year rotation. The area is divided into three sectors which are gradually coppiced. Currently there is one area which has been coppiced within the last 3 years, one area which was coppiced 7 years ago and one area which is due to be coppiced within the next year. The area of coppiced woodland has allowed the forest floor to develop with a wide variety of flora including bluebells.
- 3.33 The second area of coppiced woodland to the north west of the site has not been actively coppiced within the last 15 years. This area has large volumes of leaf litter, littering the forest floor and due to this litter and the limited light reaching the forest floor there is little flora.

Standing dead wood

- 3.34 There are a number of areas which have standing deadwood within the site. The first can be found to the south of the site at target note 22. The dead tree would be ideal habitat for bats and wood peckers, along with a wide variety of invertebrates.
- 3.35 Standing deadwood can also be found within the local nature reserve and within certain areas of the ancient woodland. Again as in paragraph 3.35 this wood would be ideal habitat for bats, wood peckers and a wide range of invertebrates.

Scattered trees

- 3.36 The field margins throughout the site are lined with scattered trees which link across the site providing wildlife corridors across the site, both North to South, but also East to West.
- 3.37 There is a dominant tree line along centurion way which runs down the east of the site, starting to the east of the Local nature reserve, down to the very southern part of the semi improvement neutral grassland field to the south. This is potentially a key wildlife corridor for the site. The dominant species include Hawthorn *Crataegus monogyna*, Whitebeam *Sorbus aria*, Rowan *Sorbus aucuparia*, Ash *Fraxinus excelsior* and Beech *fagus sylvatica*

Ditches

- 3.38 There is a wide ditch network across the site which can be found at target notes 7, 8, 9, 10, 11, and 12. These networks of ditches are in a good condition with vegetation on most banks which is not restricting water movement. The ditches provide a good network across the site for a variety of species and is a vital component of the ecological networks across the site. The ditches on site includes and are fed by the Fishbourne Chalk stream which is fed from a groundwater aquifer. Due to the ditches being fed by the chalk stream the water clarity will be high with good chemical quality which allows the ditch to support a variety of species including rare invertebrates.

Hedgerows

- 3.39 Hedgerows are found along the eastern boundary of the site on Centurion way. The hedgerow would be classed as species rich with 6 woody species including Hawthorn *Crataegus monogyna*, Blackthorn *Prunus spinosa*, Ash *Fraxinus excelsior*, Elm *Ulmus species*, Holly *Ilex aquifolium* and Field Maple *Acer campestre*. The hedgerow was approximately 2 m high and maintained well.

- 3.40 A defunct species poor hedgerow is separating the arable fields running North to South along target point 8.
- 3.41 There are a variety of hedgerows along the other field boundaries, though further hedgerow work would be required to identify the condition and quality of these hedgerows.

Species survey

Plants

- 3.42 There is a very wide area of flora though the site. There are a number of plant species listed in Section 41 of the NERC Act 2006 as being of principle importance for the conservation of biodiversity in England recorded onsite, and thus a full flora survey is required.
- 3.43 A collection of orchids were observed within the southern semi improved neutral grassland field located at target point 30. Further investigation is required to identify any rare species of orchid within this area.

Invertebrates

- 3.44 The majority of the site has potential for invertebrates excluding the arable fields which are maintained and made unsuitable habitat. The areas of the site which have semi improved natural grassland which is unmanaged provides potentially suitable habitat for Glow Worm *Lampyrus noctiluca*, a Sussex Bap species. There were no records for Glow Worm within 2 km search area for which data was supplied by the SxBRC. The hedgerows throughout the site potentially provide habitat for invertebrates including the small heath moth *Coenonympha pamphilus* and the dittander moth *Lepidum latifolium*. These species have been identified within 2 km of the site. Also within the SxBRC results, Stag Beetles and White Admirals have also been sighted.

Amphibians

- 3.45 Some of the field margins on the site were un-managed, potentially offering good foraging habitat for amphibians, including Great Crested Newt *Triturus cristatus*. There are also a number of ponds on site located at target notes 29 and 2. These ponds are suitable for amphibians. Though there are two collections of ponds on site, it would be unlikely that a Great Crested Newt would travel between the two collections of ponds due to the Old Boyle Road cutting off any access.

- 3.46 The ditches within the site are well maintained with good foraging habitat along the banks for amphibians.

Reptiles

- 3.47 The site has potential for reptiles and the areas that are considered most likely to support a reptile population are illustrated in figure 4 and are situated at target note points 31, 32, 33, 34. The dense scrub, hedgerows and unmanaged grassland provides potentially suitable habitat for slow worms and grass snakes which have been recorded within 1 km of the site. Habitat is also present with the potential to support Common Lizard and Adders, both of which have been recorded within 2km of the site.

Birds

- 3.48 Birds recorded at the site during the survey visit include; Pied Wagtail *Motacila alba*, Woodpigeon *Columba palumbus*, Wren *Troglodytes troglodytes*, Blackbird *Turdus merula*, Goldfinch *Carduelis carduelis*, Chaffinch *Fringilla coelebs*, Blue tit *Parus caeruleus*, Magpie *Pica pica*, Robin *Erithacus rurecula*, Rook *Corvus frugilegus*, Crow *Corvus Corone*, Mistle thrush *Turdus viscivorous*, Jay *Garrulus glandarius* and the Common Buzzard *Buteo buteo*.
- 3.49 The site has potential to support an assemblage of common and widespread (but sometimes declining) breeding birds of farmland and gardens. Table 4 identifies the species which have been identified from the results of the Bird Atlas 2007-11. Breeding birds are likely to be found throughout the site.
- 3.50 There are a number of suitable features on site for roosting and breeding Barn Owls *Tyto alba* and the fields are likely to provide high quality foraging habitat due to the long grassland which would be suitable for their prey such as voles. It is considered likely that some bird species listed on schedule 1 of the Wildlife and Countryside would be using the site for breeding.

Mammals

Badger

- 3.51 The site was methodically surveyed for signs of Badger *Meles meles* as follows. Grassland areas were surveyed for badger footprints, dung pits, snuffle holes, latrines and distinctive runways through the vegetation. The boundary of the site was searched for access points, latrines and stray hairs. The hedgerows, ancient woodland, earth banks and scrub habitats

were searched for signs of sett building activity, including dung pits and hairs close to sett entrances, discarded bedding, and spoil heaps from recent digging.

- 3.52 There was evidence of badgers being present onsite and this is noted at target notes 13, 16 and 18. These included extensive sett entrances and discarded bedding. There is also potential identified at target notes 14, 15 and 17 for further badger sett activity.
- 3.53 It is recognised that based on the habitats present, the whole site also has the potential to support badgers.

Bats

- 3.54 There are a number of permanent buildings within the proposed development. The buildings marked to the north east and within the middle of the site in figure 4 may have bat roosting potential.
- 3.55 The derelict buildings marked within figure 4 and at target note 21 have high potential for roosting bats.
- 3.56 There is a mature oak tree situated at target note 36 that has potential for roosting bats.
- 3.57 The field margins and tree lines throughout the site have good potential for roosting bats with a diverse range of roosting options.
- 3.58 The majority of the site offers the botanical diversity necessary to support a good invertebrate biomass and it is therefore considered to be of high quality for foraging bats.
- 3.59 The field margins and associated hedgerows on site connect to the wider rural landscape and therefore offer commuting and foraging routes for bats in the wider area.

Dormouse

- 3.60 The hedgerows and ancient woodland surrounding the site boundary provide Dormouse *Muscardinus avellanarius* habitat especially within the species rich hedgerow, which would provide a rich diverse food source for this species. A review of the aerial photographs of the site and the ecological network mapping project reveals that there is a wider network of hedgerows which have potential dormouse habitat, resulting in an increased likelihood of dormouse presence on site.

Water Voles

- 3.61 The ditches present on site had running water within them during both site visits and were considered to be suitable for water voles, due to the vegetation cover, bank depth and structure. The ditches as illustrated by target notes 7, 8, 9, 10, 11 and 12 are linked to the wider landscape and it is likely that water voles may be present throughout this ditch system.

Deer

- 3.62 A pair of Roe deer *Capreolus capreolus* were spotted onsite during the first site visit and it is likely that deer will be using this site for commuting, foraging and resting.

Brown hare

- 3.63 While the fields provide potential for Brown Hares, none were recorded during the survey, though it is likely that due to the location of the site, there may still be a small population in the local area.

Hedgehogs

- 3.64 Hedgehogs could potentially occur within the unmanaged fields and margins, hedgerows and scrub habitats on site.

4 EVALUATION

Habitats

Grassland

Semi Improved Neutral Grassland

- 4.1 The four areas of semi-improved neutral grassland show a distinct variation in species abundance, particularly among grass species. These areas have been left to develop into semi improved neutral grassland with a wide variety of vegetation. The dominant vegetation within these areas are Timothy *Phleum pratense*, and Yorkshire-fog *Holcus lanatus*. It should be noted that a number of species of orchids were growing within the semi-improved neutral grassland within the southernmost part of the site.
- 4.2 These semi-improved grassland areas are key habitat for a range of protected species and are vital for the biodiversity of the site. It is recommended that further survey work is undertaken to establish the impact removal of this habitat would have on biodiversity of the site and wider landscape.

Arable

- 4.3 The arable fields on the site are intensively managed and are considered to be of no more than local importance.

Trees

Ancient Woodland

- 4.4 There are three areas of identified ancient woodland within the site, which supports a wide range of wildlife (including more threatened species than any other UK habitat).
- 4.5 The ancient woodland also provides good quality links for wildlife to move across the district and within the wider landscape.
- 4.6 The National Planning Policy Framework, states (paragraph 118): 15

'planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss;'

The NPPF provides a clear indication of government policy on the irreplaceable nature of ancient woodland.

4.7 Within the Natural Environment and Rural Communities (NERC) Act (2006) ancient woodland is also included in Section 41 list of Habitats and Species of Principal Importance in England. Fifty-six habitats of principal importance are included on the S41 list. These are all the habitats in England that have been identified as requiring action in the UK BAP and include ancient woodland.

4.8 Due to the quality of the ancient woodland and the protection given within NERC and NPPF, the ancient woodland onsite should be retained and protected from disturbance.

Plantation and Coppice

4.9 The area of plantation within the Local Nature Reserve Brandy Hole Copse is managed through rotational coppicing to ensure the biodiversity of the forest floor is maintained. As part of the LNR, this habitat should be retained and protected from disturbance.

4.10 The second area of plantation woodland to the north west of the site, has been left unmanaged which has led to high volumes of leaf litter covering the forest floor thus reducing the range of flora diversity. This area of woodland is of local importance, though due to the potential for protected species within the area, further survey work as detailed below would be required.

Standing Deadwood

4.11 Standing deadwood is located at target note 22 in the south west corner of the site. This wood provides vital habitat for invertebrates, fungi, amphibians, birds and bats. This habitat is of local importance and should be retained onsite. There is potential for bats to be roosting within the deadwood and a survey should be undertaken to establish if they are present.

4.12 Other deadwood can be found scattered within the LNR and within the ancient woodland. It is recommended that these areas are retained and the deadwood left within the areas.

Scattered trees

4.13 The scattered trees along and within the site, provide corridors to allow for wildlife movement and one of the key routes is along Centurion Way. Any change to these tree lines

has the potential to impact on the wider ecological networks and so the impact on these networks would need to be considered.

- 4.14 Further work is required on these areas to assess the impact any change would have on the wildlife corridors and also any protected species which may be present.

Ditches

- 4.15 The network of ditches which run across the site provide an effective wildlife corridor throughout the farmland and link up the ancient woodland and LNR to the north with the ancient woodland and semi improved neutral grassland to the south of the site.
- 4.16 The ditches are likely to provide habitat for a number of protected species including water voles as detailed below and should be retained, enhanced and protected. Due to the ditches being fed by the Fishbourne Chalk stream it is likely that they may support some rare invertebrate species due to the good water clarity and good chemical quality. If any changes are proposed to the ditch networks further survey work will be required as detailed below in 4.52

Hedgerows

- 4.17 All native hedgerows consisting predominately of native woody species are included within the UK BAP priority habitat 'hedgerows' and therefore all of the hedgerows present on site would qualify.
- 4.18 The hedgerow which runs along Centurion way has been identified as having 6 woody species and qualifies as an 'important hedgerow' under the Hedgerow Regulations 1997.
- 4.19 The other hedgerows onsite would need a full assessment using the addition criteria listed in the Hedgerow regulations to determine their state.

Species

Plants

- 4.20 Due to the scale of the site, it is recommended that a full flora survey is undertaken on the site to assess if there are any plants with statutory conservation status present.

Invertebrates

- 4.21 Excluding the arable fields, the rest of the site has a good botanical diversity which is able to support a good invertebrate biomass and is considered likely to harbour large populations of

UKBAP invertebrate species. The rough grassland onsite and its proximity to hedgerows and scrub provide potentially suitable habitat for Glow Worm *Lampyrus noctiluca*, a Sussex BAP species. The desk study identified a diverse moth community in the area.

- 4.22 It is predicted that the habitats on the proposed development site will support a high population of common and widespread invertebrate species.
- 4.23 The LNR Brandy Hole Copse also has recorded sightings of the Queen of Spanish Fritillary *Lssoria lathonia*, an extremely rare migrant to the UK which may be breeding within the local area.

Amphibians

- 4.24 There are a number of suitable breeding ponds within the site for amphibians. The desk study has identified Great Crested Newts and Common toads recorded within 2km of the site.
- 4.25 The ponds would also be suitable for Great Crested Newts and if any work is to take place near these areas, then a Great Crested Newt survey will need to be undertaken.
- 4.26 It is recommended, along with a Great Crested Newt survey, a full amphibian survey is undertaken at each pond, to determine their importance locally.

Reptiles

- 4.27 There are a number of areas of suitable reptile habitat on site, primarily within the semi-improved neutral grassland and around the edges of the fields adjacent to the hedgerows and ditches. These areas may potentially support populations of species of reptiles; Slow Worm *Anguis Fragilis*, Common Lizard *Lacerta vivipara* and Grass snake *Natrix natrix*. The desk study has identified records of Slow worm, Common Lizard, Grass Snake and Adder within 2km of the development site.
- 4.28 Action is required in order to comply with legislation to avoid the killing and injuring of reptiles – they are protected by sub-section 9 (1) of the Wildlife and Countryside Act 1981 (as amended).
- 4.29 We would recommend that further survey work is undertaken to establish their presence on site. These surveys should include direct, observational searches for reptiles and the placement of ‘refugia’ in suitable habitat. Refugia are sheets of roofing felt and corrugated metal that are used by reptiles for basking and sheltering under and increase the probability

that reptiles will be detected. The number of refugia and visits made to check for reptiles should follow the current guidance from Natural England and be undertaken during the reptile active season in April, May or September.

Birds

- 4.30 The desk study has identified that in the 2km search area there is a very diverse bird community, including a large number of species with listed conservation status (both statutory and non-statutory) and birds that are rare visitors to the UK that attract the attention of birdwatchers. This results from the presence of:
- Chichester Harbour - an area of tidal flats and saltings which is of outstanding ecological significance. Very large populations of wildfowl and waders use the mudflats feeding on the rich plant life and the huge population of intertidal invertebrates. More than 7,500 Brent geese overwinter on the intertidal mud-flats and adjacent farmland and more than 50,000 birds reside in or visit the Harbour throughout the year.
 - Pagham Harbour - an area of diverse semi-natural habitats managed for their biodiversity value that is very well used by birdwatchers.
- 4.31 This site contains habitats to support some of the bird species using Chichester Harbour.
- 4.32 The site has four large areas of grassland and extensive hedgerow and it is recommended that breeding bird surveys are undertaken in these areas to establish the level of breeding birds utilising the site. These surveys would also have to be undertaken in the field margins around the arable fields.
- 4.33 Action will be required for breeding birds in order to comply with legislation to avoid damaging or destroying any bird's nests present on the site during any development works. All birds, their nests and eggs are protected by the Wildlife and Countryside Act 1981 (as amended).

Mammals

Badgers

- 4.34 The survey concluded that there is potential for badgers *Meles meles* on the site currently through occupation in setts and for foraging. The survey identified a number of setts within the ancient woodland to the west of the site and has identified further areas with potential at target notes 13, 14, 15, 16, 17, and 18.

- 4.35 We recommend that further survey work is undertaken to establish the population size of badgers on the site, the size of their setts and their foraging range.
- 4.36 Action will be required for Badgers in order to comply with legislation to avoid damaging or destroying a badger sett present on site or killing, injuring or disturbing a badger during any development works. All badgers and their setts are protected by the Protection of Badger Act 1992.
- 4.37 Badgers are highly mobile animals and there is a possibility, that given a length of time a sett could be established on site. New surveys would be required if more than a year has passed from the previous survey prior to any works taking place onsite.

Bats

- 4.38 The survey has identified that there are a number of buildings and trees within the site area which have roost potential. The desk study illustrates a vast number of bat sightings within close proximity to the site.
- 4.39 The site has also been identified as having high quality foraging habitat for bats along the hedgerows and field margins, the ancient woodland, ditches and semi improved neutral grassland. The hedgerows and tree lines also have the potential to provide commuting corridors for bats roosting elsewhere in and around the West of Chichester, across the site to foraging locations in the wider landscape.
- 4.40 The field margins and associated hedgerows on site connect to the wider rural landscape and therefore offer commuting and foraging routes for bats in the wider area.
- 4.41 The site is potentially of district importance for roosting, foraging and commuting bats.
- 4.42 It is recommended that extensive bat surveys are undertaken to establish the roosts present on site and to identify the foraging habitat and commuting corridors used by bats. These surveys should include Daytime inspections of the potential buildings and trees which may support roosts, three to four dusk emergence and dawn 'return to roost' surveys to identify the level of activity and finally where roosts are found, individual roost surveys would be required.
- 4.43 Action is necessary in order to comply with legislation that requires maintenance of the favourable conservation status of the local population of bats. This will include ensuring that the population is not significantly affected by changes in land use away from their roosts that for instance might affect their ability to forage or reach good foraging areas. Measures

would need to be developed relating for instance to the management and enhancement of the boundary features, the creation of insect rich habitat within the green space on site and the design of the lighting within the development to ensure that the favourable conservation status of the local bat population is maintained and enhanced.

- 4.44 All species of bat and their breeding sites or resting places (roosts) are protected under Regulation 41 of The Conservation of Habitats and Species Regulations 2010 and Section 9 of the Wildlife and Countryside Act 1981. It is an offence for anyone intentionally to kill, injure or handle a bat, to possess a bat (whether live or dead), disturb a roosting bat, or sell or offer a bat for sale without a licence. It is also an offence to damage, destroy or obstruct access to any place used by bats for shelter, whether they are present or not.

Dormice

- 4.45 The survey has identified there is potential habitat for dormice *Muscardinus avellanarius* within the site area and the site has connections to potential dormouse habitat in the wider landscape. The desk study has identified that there are records of dormice within 2km of the site.
- 4.46 It is recommended that further survey work for dormice is undertaken to establish their presence/absence on-site, their population size and which areas of the site they are utilising. Survey efforts should include the use of nest boxes and / or tubes, which should be erected in suitable habitats within the ancient woodland and hedgerows. These tubes should be checked monthly throughout the survey period. A nut search should also be undertaken looking for gnawed hazel nuts, and should be undertaken to supplement the nest tube survey.
- 4.47 Dormice are protected under both the Conservation of Habitats and Species Regulations 2010 and the Wildlife and Countryside Act 1981 (as amended) . Dormice and their breeding sites and resting places are fully protected. Without a licence it is an offence for anyone to deliberately disturb, capture, injure or kill them. It is also an offence to damage or destroy their breeding or resting places, to disturb or obstruct access to any place used by them for shelter. It is also an offence to possess, or sell a wild dormouse.

Water vole

- 4.48 The survey identified that the ditches within the site have suitable habitat for water voles due to their vegetation cover, bank depth and structure.

- 4.49 The desk study has that water voles have been recorded on site and within the wider landscape.
- 4.50 The ditch network allows water voles to move across the site and into the wider landscape.
- 4.51 It is recommended that survey work for water voles is undertaken to establish which ditches they are living, breeding and feeding in. The surveys should be undertaken between April and September and should be based on the presence of characteristic signs. Site specific searches should include close examination of all waterways and pond banks up to two metres away from the water's edge.
- 4.52 Water voles are currently declining at a rapid rate. Water voles are protected under the Wildlife and Countryside Act 1981 (as amended) from killing or taking by certain prohibited methods. Their breeding and resting places are fully protected from damage, destruction or obstruction. It is also an offence to disturb them in these places.

Deer

- 4.53 During the survey a pair of Roe Deer *Capreolus capreolus* was noted within the semi-improved neutral grassland found at target note 26. Deer are a very mobile species and may only use the site for foraging.
- 4.54 There would be some loss of foraging habitat for deer if the site was developed.
- 4.55 The proposed development site is evaluated as being of no more than local importance for deer.

Hedgehogs

- 4.56 The survey identified that there is some potential habitat for this species to occur within the proposed development site.
- 4.57 The proposed development site is evaluated as being of no more than local importance for hedgehog.

5 RECOMMENDATIONS

- 5.1 The survey of the West of Chichester site has identified a range of habitats which are suitable for protected species.

Desk Top survey

- 5.2 The desk top survey has identified a number of designated sites within or close to the site area. These sites include;

- Chichester Harbour SSSI
- Solent Maritime SAC
- Local Nature Reserve LNR – within the site
- Chichester and Langstone Harbours – SPA and RAMSAR site

All these sites are of local importance and Chichester and Langstone Harbour and the Solent Maritime SAC are of national importance.

- 5.3 If the site were to be developed, new residents of the development might walk, cycle or drive off-site for recreational access, including dog walking and this could include travelling to Chichester Harbour. The potential impacts on Chichester Harbour as a result of the increased number of residents and hence recreational access (including dog walking) needs to be addressed in a separate specific report. The degree to which such impacts can be avoided will depend on the degree to which the site connects to the harbour for walkers and cyclists and also on the set up and delivery of a Solent wide strategic mitigation project.
- 5.4 The West of Chichester Strategic Site lies within the Fishbourne and Chalk streams Biodiversity Opportunity Area. This is one of eight Biodiversity Opportunity Areas (BOAs) identified within the Chichester District Plan Area by the Sussex Biodiversity Partnership.
- 5.5 The desk top report has identified a large number of protected species and in particular bats, present both on and within close proximity to site but also within the wider landscape
- 5.6 The Green Infrastructure mapping project has identified wildlife corridors across the site for bats and water voles and also suitable habitat for barn owls, farmland birds and dormice.
- It is recommended that due to the identified wildlife corridors, further survey work should be done within the protected species surveys to identify the impact of development on the site and the wider landscape.

Habitat surveys

5.7 The habitat survey has identified a rich mix of habitats and biodiversity within the site. Due to the features including ditches, ancient woodland, coppiced woodland, scattered tree lines, hedgerows and semi-improved neutral grassland, the potential for protected species on the site is high. As detailed within the evaluation it is recommended that the following surveys are undertaken as shown in Table 8

Table 8 – Further survey work recommended

Species	Survey required	Location	Time of year
Bats	1. Daytime Inspection Survey 2. Dusk Emergency Survey 3. Dawn Survey 4. Roost Surveys – licenced bat worker required	Within tree lines, buildings, standing deadwood, ancient woodland, hedgerows and ditches	1. All Year 2. May to August 3. May to August 4. Roost dependant
Great Crested Newt	1. Presence and Absence Survey a. egg survey b. bottle trapping	In all ponds onsite which would be affected by development	1. Mid-March and Mid-June in suitable weather conditions
Dormice	1. Nest tube surveys 2. Nut search survey	Within the hedgerows and ancient woodland	1. April and November 2. September - December
Water Voles	1. Ditch assessment	All ditches on site and within 2m of the bank	1. April - September
Badgers	1. Assessment of setts, paths, latrines, paths and hairs 2. Bait marking	Ancient woodland areas semi-improved neutral grassland and Centurion way	1. All year though optimum period Feb – September 2. March, April, Sept - November
Reptiles	1. Refugia surveying	In the field margins and semi-improved neutral grassland	1. April - June and September
Wintering birds	1. Species ID 2. Population levels 3. Distributions 4. Flight patterns	Locations to identify the arriving and departing locations	November to February
Breeding birds	1. Nest search 2. Barn Owl nest search	Within the hedgerow, trees, buildings and semi-improved neutral grassland onsite	1. February – August 2. April - August
Amphibians	1. breeding survey 2. Eggs and larvae search 3. Basking reptiles 4. Juvenile search	In ponds and surrounding habitats	1. March to June 2. March to July 3. March to April 4. August and September
Flora	1. National classification Survey (NVY)	All semi-improved neutral grassland, ancient woodland, hedgerows and field margins	1. April - September

5.8 Once these surveys have been undertaken, consideration can be given to the impact potential development would cause and what mitigation will need to be provided.

6 CONCLUSIONS

- 6.1 The site is situated in an area of land which falls within the Fishbourne and Chalk Streams Biodiversity Opportunity Areas which has been recognised as a regional priority area for restoration and creation of Biodiversity Action Plan habitats.
- 6.2 The site contains the local nature reserve Brandy Hole Copse which has been designated for its unique ancient woodland, ancient monument and traditional coppiced sweet chestnut.
- 6.3 The site is situated within close proximity to Chichester Harbour SSSI, SPA and RAMSAR site. The potential impacts on Chichester Harbour as a result of the increased number of residents and hence recreational access (including dog walking) needs to be addressed in a separate report.
- 6.4 The areas of semi-improved neutral grassland on the site are considered to potentially have some conservation importance which would be lost if development took place on the site. Further survey work has been recommended to assess this.
- 6.5 The hedgerows, ditches and scattered trees on the site provide wildlife corridors across the site and connecting to the wider landscape. These are an important component of the functioning ecological network.
- 6.6 The three areas of ancient woodland within the site is high quality habitat that supports a diverse ecosystem of species. If development took place these areas need to be retained and protected from disturbance.
- 6.7 There are a large number of further surveys which are required for protected species which are likely to be using the site. It is recommended that these surveys are undertaken by a suitably qualified ecologist at the times detailed within table 8.
- 6.8 This report provides information to the Local Plan Team at Chichester District Council as part of the local plan consultation process.

7 WILDLIFE LEGISLATIONS

- 7.1 There are several pieces of legislation relating to wildlife and biodiversity. The pieces of legislation which are of particular relevance to ecology and development are the Wildlife and Countryside Act 1981 (as amended), the Conservation of Habitats and Species Regulations 2010 and Protection of Badgers Act (1992). These pieces of legislation and the species and habitats they afford protection to have been given significant consideration in the production of this report. In addition, Biodiversity Action Plans, the Natural Environment and Rural Communities Act (2006) and Planning Policy Statement 9 are also of particular relevance to ecology and development as discussed below.

UK Biodiversity Action Plan (UKBAP)

- 7.2 The UK Biodiversity Action Plan (UK BAP) was first published in 1994, as the UK Government's response to signing the Convention on Biological Diversity at the 1992 Rio Earth Summit. This has now been replaced by the new UK Post-2010 Biodiversity Framework⁵ which covers the period from 2011-2020. In England the focus is now on delivering outcomes set out in the Biodiversity 2020 strategy⁶ (Published August 2011). The Biodiversity Strategy sets out a list of species and habitats of principal importance for conserving biodiversity in England. The lists were drawn up in response to The Natural Environment and Rural Communities (NERC) Act 2006. There are currently 56 habitats and 943 species of principle importance listed in Section 41 of the Act (the S41 List) which were identified as needing action under the UKBAP and which continue to be regarded as priorities under the UK Post-2010 Biodiversity Framework. The NERC Act makes it clear that Local Planning Authorities should consider impacts to biodiversity when determining planning applications, with particular regard to UK BAP/S41 List of species and habitats, even where they are not covered by other legislation. National Planning Policy Framework

National Planning Policy Framework (NPPF)

- 7.3 The National Planning Policy Framework (NPPF)⁷, published in March 2012, sets out the Government's planning policies for England and how they should be applied. Chapter 11 'Conserving and enhancing the natural environment' sets out the Government's policies on biodiversity, landscape and geological conservation. In summary, with regards to ecology and biodiversity, the NPPF requires that the planning system and planning policies should:

- minimise impacts on biodiversity and provide net gains in biodiversity where possible;
- recognise the wider benefits of ecosystem services;
- promote the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species populations, linked to national and local targets;
- explore and encourage opportunities to incorporate biodiversity in and around developments;
- refuse planning permission if significant harm cannot be avoided, adequately mitigated, or, as a last resort, compensated for;
- planning permission should not normally be permitted where proposed development on land within or outside a Site of Special Scientific Interest (SSSI) would be likely to have an adverse effect on the SSSI (either individually or in combination with other developments), and
- refuse planning permission if development will result in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss.

7.4 The presumption in favour of sustainable development, included within the NPPF (Paragraph 14), does not apply where development requiring appropriate assessment under the Birds or Habitats Directives is being considered, planned or determined. This is relevant to developments that could have a significant effect on European sites i.e. Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). The following wildlife sites should be given the same protection as European sites:

- potential SPAs and possible SACs;
- listed or proposed Ramsar sites, and
- sites identified, or required, as compensatory measures for adverse effects on European sites, potential SPAs, possible SACs, and listed or proposed Ramsar sites

7.5 The Government Circular 06/20058, which is referred to in the NPPF, provides further guidance in respect of statutory obligations for biodiversity and geological conservation and their impact within the planning system. This guidance remains relevant and applicable.

Natural Environment and Rural Communities (NERC) Act (2006)

- 7.6 The Natural Environment and Rural Communities (NERC) Act (2006) was established with the intention to help ensure that biodiversity becomes an integral consideration in the development of policies, and that decisions of public bodies work with nature and not against it. The English Biodiversity List has been drawn up to meet the requirements of Section 41 of the Act. The S41 list consists of 943 species and 56 habitats of principal importance in England and will be used to guide decision makers such as public bodies, including local and regional authorities, in implementing their duty under Section 40 of the NERC Act.
- 7.7 The Government Circular 06/20058, which is referred to in the NPPF, provides further guidance in respect of statutory obligations for biodiversity and geological conservation and their impact within the planning system. This guidance remains relevant and applicable.

IUCN

- 7.8 The IUCN Red List is set upon precise criteria to evaluate the extinction risk of thousands of species and subspecies. These criteria are relevant to all species and all regions of the world. The aim is to convey the urgency of conservation issues to the public and policy makers, as well as help the international community to try to reduce species extinction. According to IUCN (1996), the formally stated goals of the Red List are (1) to provide scientifically based information on the status of species and subspecies at a global level, (2) to draw attention to the magnitude and importance of threatened biodiversity, (3) to influence national and international policy and decision-making, and (4) to provide information to guide actions to conserve biological diversity.

Extinct (EX) – A taxon is extinct when there is no reasonable doubt that the last individual has died

Extinct in the Wild (EW) – A taxon is extinct in the wild when it is known only to survive in cultivation, in captivity or as a naturalised population well outside the past range.

Critically Endangered (CR) – A taxon is Critically Endangered when it is considered to be facing an extremely high risk of extinction in the wild.

Endangered (EN) – A taxon is Endangered when it is considered to be facing a very high risk of extinction in the Wild

Vulnerable (VU) – A taxon is Vulnerable when it is considered to be facing a high risk of extinction in the Wild

Near Threatened (NT) – A taxon is near threatened when it is close to qualifying for or is likely to qualify for a threatened category in the near future.

Least concern (LC) – A taxon is least concern when it has been evaluated against the criteria and does not qualify for a critically endangered, endangered, vulnerable or near threatened.

Not evaluated (NE) – A taxon is not evaluated when it has not been evaluated against the criteria

Regionally scarce (NR) – Occurs in 5 or fewer in a 10km square in a particular region of Britain. Locally determined

Birds of Conservation Concern (2009)

- 7.9 Every five years the leading government and non-government conservation organisations in the UK review the population status of the 247 species of bird that are regularly found in the UK. There are three lists, Red, Amber and Green, into which each of the species has been placed. 40 species are Red listed, 121 are Amber listed and 86 are green listed. The status decisions are based on several factors which include: the species global and European conservation status, recent and historical decline, whether it is a rare breeder, if it is only confined to a few sites in the UK, and if the species is of international importance
- 7.10 **Red list species** are those that are globally threatened according to IUCN criteria including: those whose population or range has declined rapidly in recent years, and those that have declined historically and not shown a substantial recent recovery.
- 7.11 **Amber list species** are those with unfavourable conservation status in Europe, those whose population or range had declined moderately in recent years, those whose population has declined historically but made a substantial recent recovery, rarer breeders and those with internationally important or localised populations.
- 7.12 **Green list species** are those that do not fulfil any of the above criteria. Some of these species are however protected by law and the list includes some Schedule 1 species which have the highest level of protection.

Sussex Biodiversity Action Plan

- 7.13 The Sussex Biodiversity Action Plan Species Inventory (Sussex BAPSI) is based on the new UK List of Priority Species and Habitats, which was launched in 2007 by the UK Biodiversity Partnership and replaces the old list. The new list contains 1,149 species and 65 habitats.

8 REFERENCES

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9 FIGURES

Figure 1. Site Location West of Chichester

Figure 2. Landscapes and Designations

Figure 3. Biodiversity Opportunity Areas

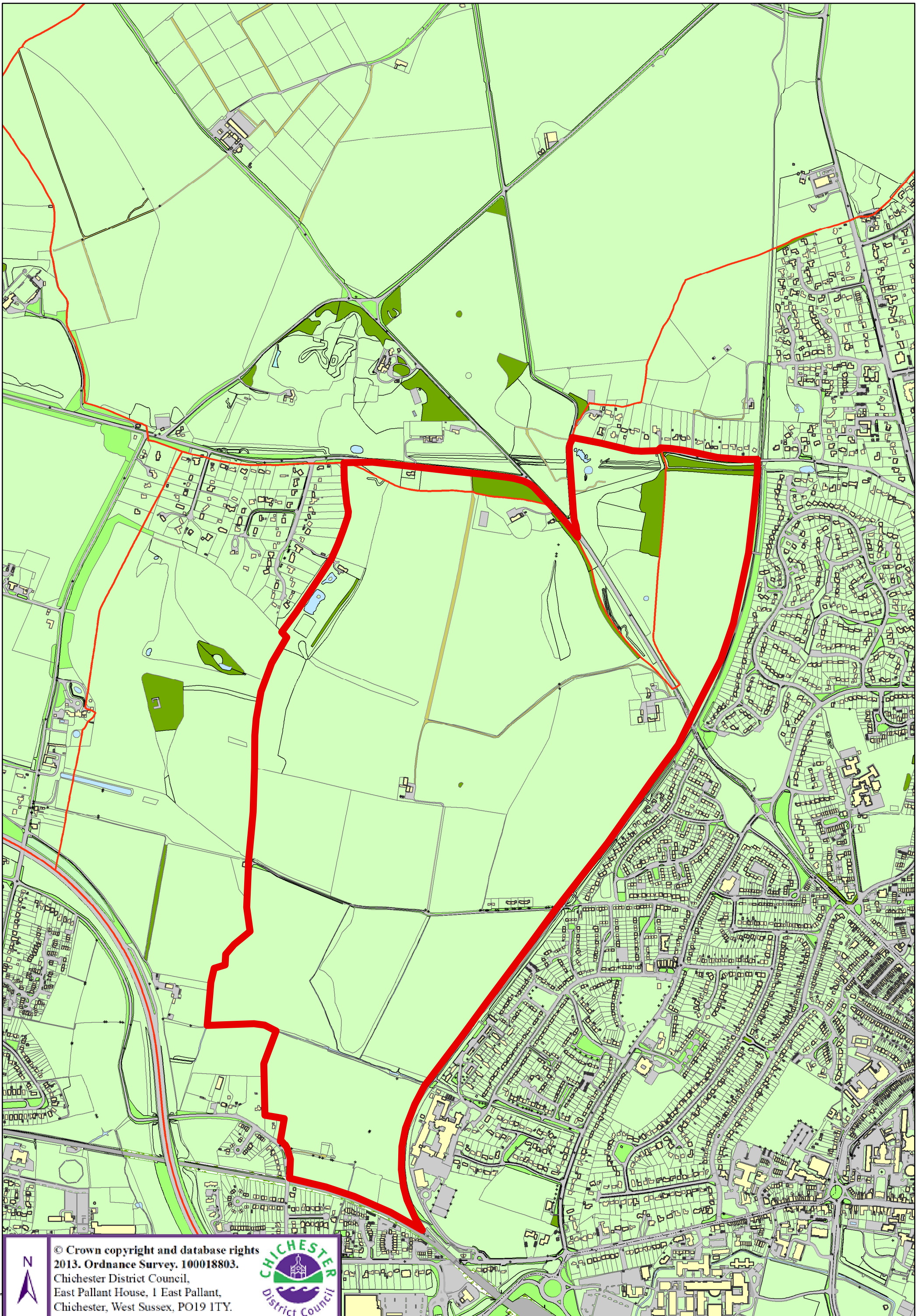
Figure 4a. Phase One Habitat Survey Map

Figure 4 – Target Notes – Phase One Habitat Survey

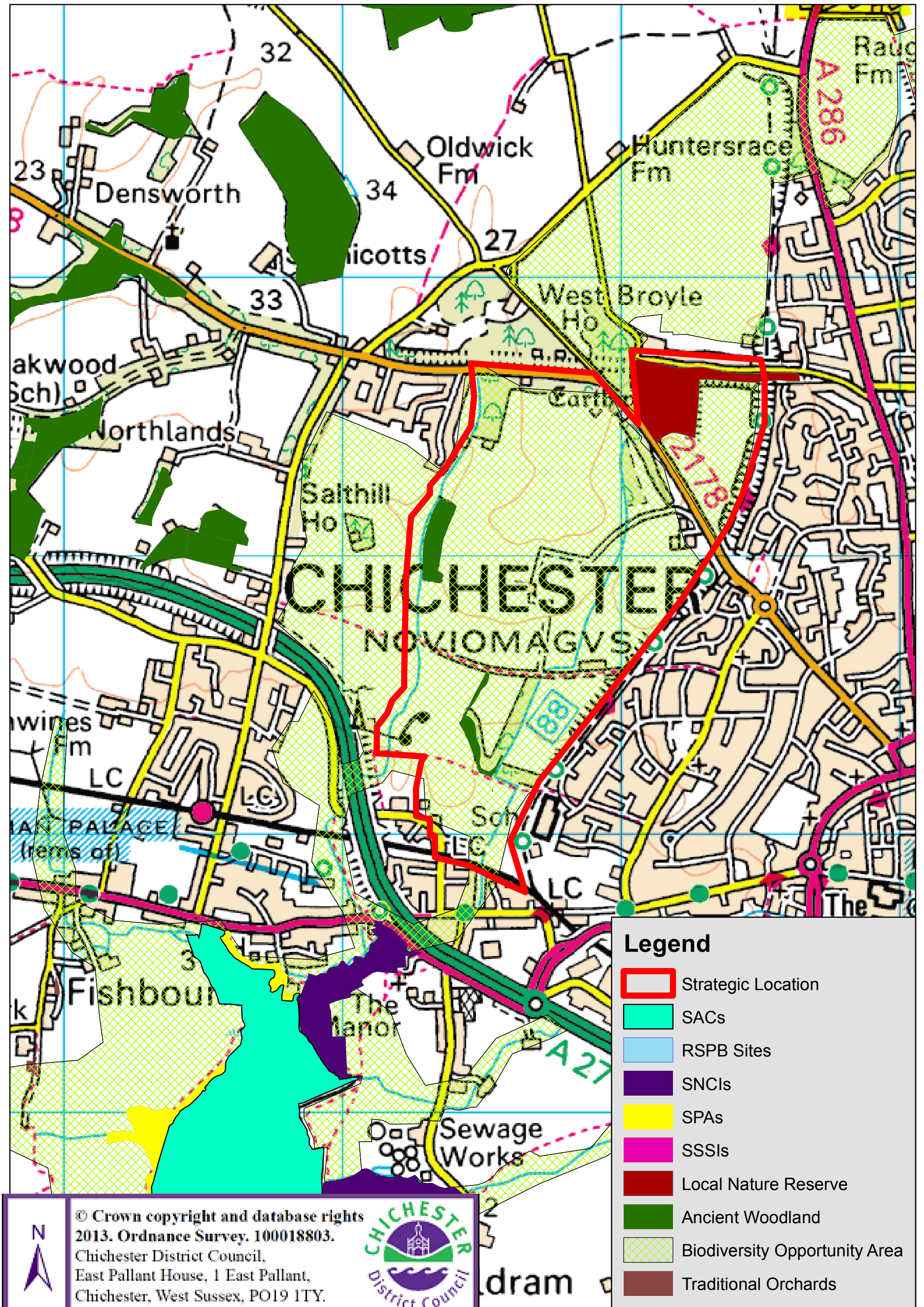
10 APPENDICIES

1. Record centre report

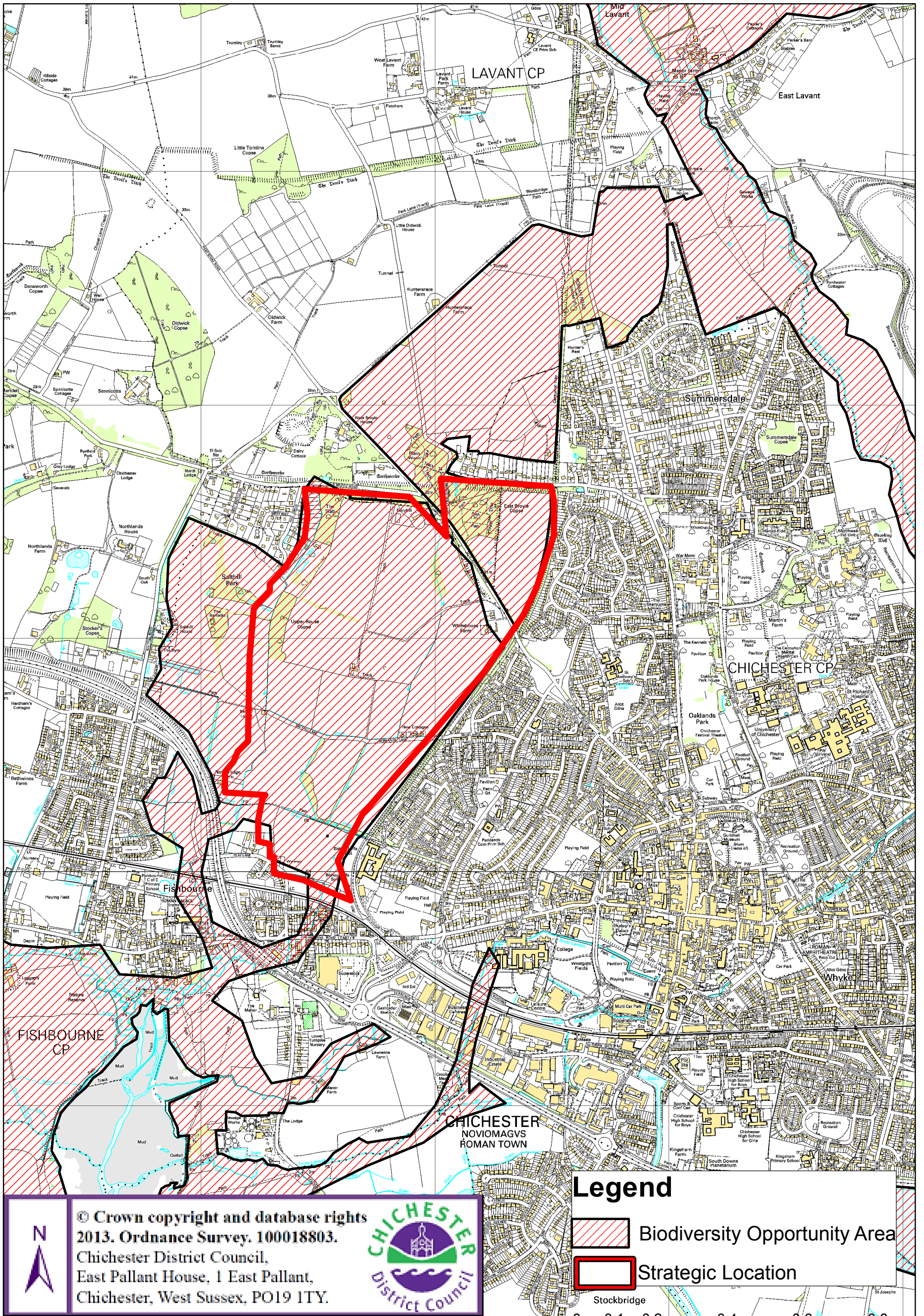
West of Chichester




West of Chichester - Landscape and Designations



Biodiversity Opportunity Areas - Chichester District



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 2013. Ordnance Survey. 100018803.
 Chichester District Council,
 East Pallant House, 1 East Pallant,
 Chichester, West Sussex, PO19 1TY.



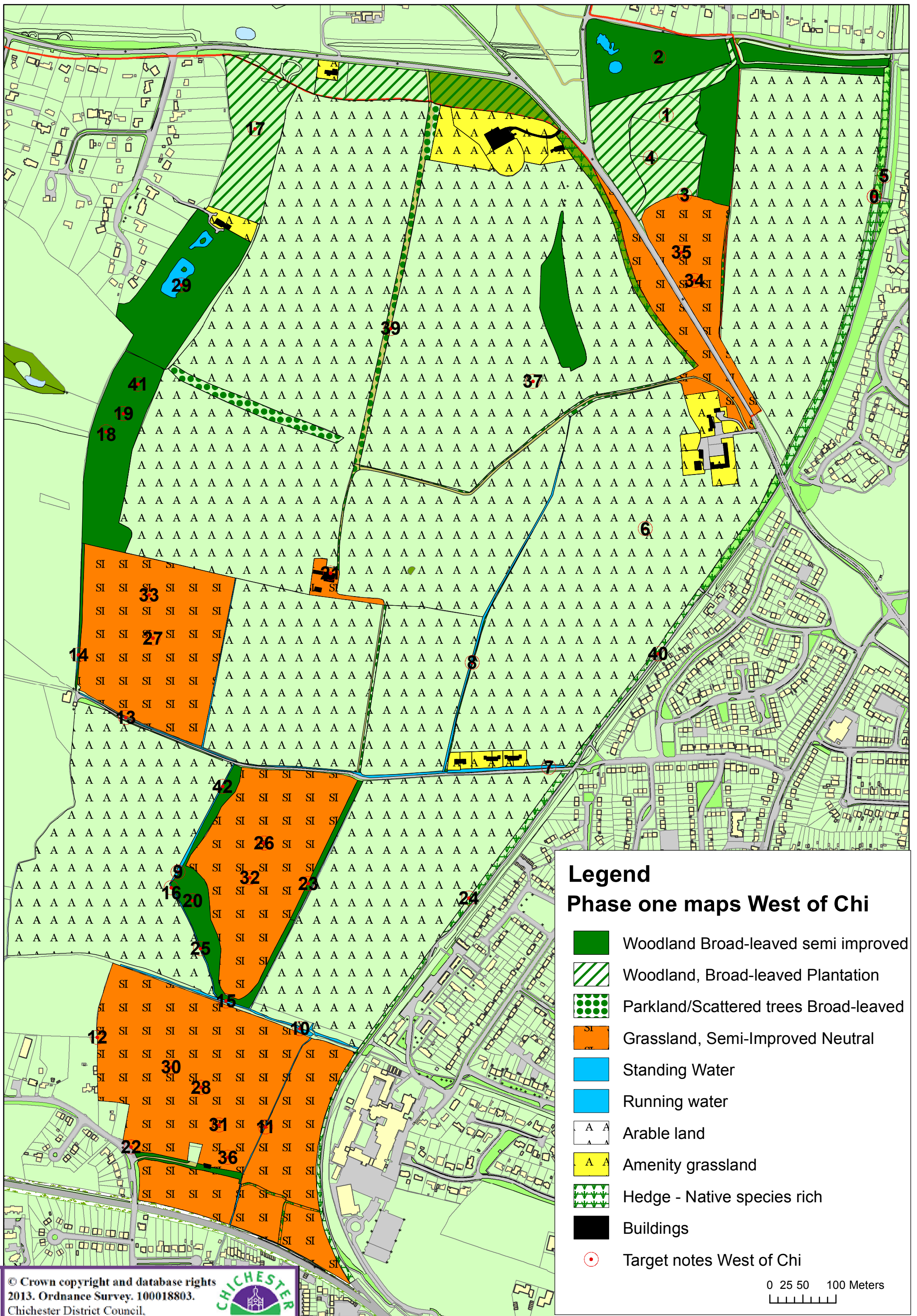
Legend

-  Biodiversity Opportunity Area
-  Strategic Location

Stockbridge

0 0.1 0.2 0.4 0.6 0.8 Miles

West of Chichester - Phase One Habitat Survey



Legend

Phase one maps West of Chi

- Woodland Broad-leaved semi improved
- Woodland, Broad-leaved Plantation
- Parkland/Scattered trees Broad-leaved
- Grassland, Semi-Improved Neutral
- Standing Water
- Running water
- Arable land
- Amenity grassland
- Hedge - Native species rich
- Buildings
- Target notes West of Chi

0 25 50 100 Meters



Target Notes - Phase One Habitat Survey West of Chichester

1	Local Nature Reserve - Brandy Hole Copse
2	Great Crested Newt Potential - Pond
3	Barn Owl Potential
4	Bat Potential
5	Bat Potential
6	Barn Owl Potential
7	Water vole potential
8	Water vole potential
9	Water vole potential
10	Water vole potential
11	Water vole potential
12	Water vole potential
13	Badger Sett
14	Badger Sett
15	Badger Sett
16	Badger Sett
17	Badger Sett Potential
18	Badger Sett Potential
19	Ancient Woodland
20	Ancient Woodland
21	Bat Potential - abandoned buildings
22	Bat Potential - standing deadwood
23	Bat Potential
24	Bat Potential
25	Bat Potential
26	Barn owl Habitat
27	Barn owl Habitat
28	Barn owl Habitat
29	Great Crested Newt Potential - Potential
30	Orchids present - fauna survey work required
31	Reptile Potential
32	Reptile Potential
33	Reptile Potential
34	Reptile Potential
35	Bat Potential
36	Bat Potential
37	Bat Potential - Oak Tree
38	Barn Owl Potential
39	Bat Potential
40	Dormouse Potential
41	Dormouse Potential
42	Dormouse Potential