

**EXTENDED PHASE I HABITAT SURVEY OF LAND AT CAUTLETTS
 CLOSE, MIDSOMER NORTON, SOMERSET**

CLIENT: DAVID WILSON HOMES

OUR REF: DAVWIL-CAUCLO-2693



Issue	Date of Issue	Written By	Reviewed + Approved By
One	23 February 2010	SK	KH
Two	22 March 2010	SK	KH
Three	11 August 2010	LP	KH

**EXTENDED PHASE I HABITAT SURVEY OF LAND AT CAUTLETTS
CLOSE, MIDSOMER NORTON, SOMERSET**

NON-TECHNICAL SUMMARY

Site location and size	Cautletts Close (including 100 Withes Park and Cautletts Close), Midsomer Norton; 3.67ha
Scope of Works	Extended Phase I habitat survey and data search (web based search and review of 2009 records sent from Bristol Regional Environmental Records Centre)
Purpose of Works	To inform proposed redevelopment of the site, including the construction of residential properties and associated infrastructure
Dates of site visits and names of surveyors	19 February 2010; Lisa Peirce and Sara King
Overview	<p>The site consists of two areas: 100 Withes Park (0.07ha), which comprises residential property and grounds with the River Somer, a Site of Nature Conservation Interest, running through it; and Cautletts Close (3.6ha), which comprises an arable field with fringing hedgerows, scrub, woodland and the River Somer along the western boundary</p> <p>No signs of protected/notable species were recorded during the survey, but the site, and in particular, the River Somer has suitability to support protected/notable species</p>
Recommendations for further surveys	<p>100 Withes Park (excluding river): Daytime bat assessment and survey of buildings and trees</p> <p>Cautletts Close (excluding river): Daytime bat assessment and survey of trees; bat activity survey; hedgerow survey; great crested newt habitat suitability assessment of ditch; and dormouse survey</p> <p>River Somer: Otter, water vole and kingfisher; freshwater white-clayed crayfish</p>
Recommendations for protection of ecological features of value	Retention and protection of the River Somer and a suitable buffer, incorporating existing scrub and woodland, and hedgerows and mature trees, where possible
Key recommendations and other recommendations for enhancement	<p>A Precautionary Method of Working should be drawn up with respect to site clearance and construction phases, and consideration to bats, reptiles, birds and small mammals</p> <p>New structures spanning the river should be of a suitable design to allow the continued movement of wildlife beneath</p> <p>Consideration should be given to incorporating built-in bat and bird features in new buildings</p> <p>Consideration should be given to sustainable drainage systems as part of the development</p> <p>Ecological input should be sought for future planting/landscaping schemes</p> <p>Future management should consider enhancing wildlife potential on the site</p>

CONTENTS

INTRODUCTION 3

 Objectives of Study 3

 General Description 3

NOMENCLATURE..... 3

METHODS 4

 Desktop Study..... 4

 Ecological Field Survey 4

 Ecological Evaluation..... 4

RESULTS 5

 Desktop Study..... 5

 Ecological Field Survey 6

 Field Observations and Consideration to Other Protected/Notable Species..... 10

ECOLOGICAL EVALUATION 13

 Component Habitats 13

 Overall Site Evaluation 16

ECOLOGICAL CONSIDERATIONS AND RECOMMENDATIONS 17

 Habitats..... 17

 Species..... 17

ECOLOGICAL OPPORTUNITIES 21

LIMITATIONS OF SURVEY AND REPORT 22

REFERENCES/BIBLIOGRAPHY 23

APPENDIX I: SPECIES LIST (SPECIES RECORDED ON SITE)

APPENDIX II: DEFINING ECOLOGICAL VALUES.....

APPENDIX II: DEFINING ECOLOGICAL VALUES.....

APPENDIX III: AN ECOLOGICAL EVALUATION.....

APPENDIX IV: SUMMARY OF DESK STUDY SPECIES RECORDS

INTRODUCTION

1. In February 2010, ecosulis ltd was commissioned by David Wilson Homes to undertake an extended Phase I habitat survey of land at Cautletts Close and 100 Withes Park, Midsomer Norton, Somerset. Current proposals include the demolition of 100 Withes Park to make way for an access road, and the development of residential housing within land at Cautletts Close.
2. Two members of staff from ecosulis ltd, Lisa Peirce and Sara King, visited the site on 19 February 2010 to undertake the survey. Access was provided by the landowner.

Objectives of Study

3. The objectives of this study are: To provide information on the existing ecological conditions at the site; to identify potential constraints and opportunities that ecology may pose to site clearance and future development plans; and to identify further ecological studies that may be required to ensure that ecology is fully considered within the proposals.

General Description

4. The development site is located in Midsomer Norton, and covers approximately 3.67ha (centred on OS grid reference ST 659 535). The site is divided into two development areas: 100 Withes Park and land at Cautletts Close (for locations see Figure 1).
5. 100 Withes Park comprises occupied residential buildings and gardens and includes the River Somer running through the site. The site covers approximately 0.07ha and lies predominately within urban environments to the north, south and west. Cautletts Close development site lies to the east.
6. Land at Cautletts Close covers 3.6ha and is dominated by arable land with woodland, scrub, hedgerows and the River Somer on the western boundary of the site. Urban environments lie to the south and west of the site. Amenity grassland and hedgerows lie to the north and east of the site.

NOMENCLATURE

7. The common name only of flora and fauna species is given in the main text of this report; however, Latin names are used for species where no common name is available. A full species list with Latin names of species recorded on site during the survey is listed in Appendix I. All plant names follow the nomenclature of Stace (1997).

METHODS

Desktop Study

8. A review of information sent by Bristol Regional Environmental Records Centre (BRERC) in August 2009 was undertaken to identify records on non-statutory sites on or within 1km of the site, and protected and/or notable species within 1km of the site.
9. The 'Local Live' website was accessed for aerial views of the site and used as a visual aid to help put the site into context with its surroundings and to identify any potential features of interest in the surrounding land.
10. The Multi-Agency Geographical Information for the Countryside (MAGIC) website was consulted for information on statutory site designations in the area.
11. The National Biodiversity Network (NBN) website was also consulted for information on records of protected and notable species in the area.

Ecological Field Survey

12. Phase I Habitat Survey is a survey method and habitat classification system that was developed by the Nature Conservation Council, now Joint Nature Conservation Committee (JNCC, 2007) to map habitats and land use categories to a 'consistent level and accuracy'. Vegetation and habitats are mapped using standard colour codes, allowing rapid visual assessment of the extent and distribution of different habitat types. Where appropriate, Target Notes highlight potential features of interest. An extended Phase I habitat survey also records provisional signs of protected or notable species and assesses the suitability of the habitats on site and within the accessible surroundings to support such species.
13. The site was surveyed on 19 February 2010, by two members of staff from ecosulis Ltd, Lisa Peirce and Sara King.

Ecological Evaluation

14. Habitat areas and species populations (where appropriate) within the site are assigned ecological values on a scale between International Value and Negligible Value, based on the results of the desktop study and survey. The value assigned to habitats and species adopts the recommendations for evaluating habitats given in the IEM guidelines for Ecological Impact Assessment (2006). The geographical value categories used in this assessment are: *International* (Europe), *UK*, *National* (England), *Regional* (south-west), *County* (Avon), *District* (Midsomer Norton), *Local* (Cautletts Close/Withes Park), and *Site* (within immediate the zone of influence only). Examples of the factors that are considered in defining such ecological values

are given in Appendix II. Natural processes and interactions between physical and biotic factors are all considered in the assessment. Values are assigned to all habitats likely to be directly or indirectly affected by the proposed development.

15. The site as a whole has been assessed using criteria set out by Ratcliffe (1977) as a guide (Appendix III).

RESULTS

Desktop Study

16. The results of the desktop study, including information from the local records centre (BRERC), and web-based search, including MAGIC, NBN and Local Live websites, have been combined and categorised into the following headings; Designated Sites (Statutory and Non-statutory), Species, and Habitats. The results are summarised below.

Designated Sites

17. MAGIC website informed that no statutory designated sites lie within the site boundary. There is one statutory site located within 2km of the site: Silver Street Local Nature Reserve (LNR). The information obtained from MAGIC website regarding the LNR is summarised below in Table 1.

Table 1: Statutory Sites Located Within 2km of the Site (MAGIC, August 2009)

Site	Location	Description
Silver Street LNR	0.16km east of the site	Site comprises semi-natural broadleaved woodland with several springs arising, a pond, and woodland ground flora including bluebells; and an adjacent field which is grassland

18. BRERC inform that there are five Sites of Nature Conservation Interest (SNCI) within 1km of the site. The River Somer SNCI flows through 100 Withes Park site and forms part of the western boundary of the Cautletts Close site.

Table 2: SNCIs Located Within 1km of the Site (BRERC, August 2009)

Site	Location	Description
Redfield Wood	0.7km west of the site	Planted broadleaved woodland
Jack's Wood	0.6km north-west of the site	Planted broadleaved woodland
Norton Radstock Disused railway line	0.2km east of the	Semi-natural broadleaved woodland, scrub, unimproved

Site	Location	Description
	site	calcareous and neutral grassland, semi-improved neutral grassland
River Somer	Within 100 Withes Park Forming the western boundary of Cautletts Close	Running water (river) with associated marginal habitats and tall ruderal vegetation
Wellow Brook	1 km north of the site	Running water (stream) with associated marginal habitats, unimproved and semi-improved calcareous grassland, unimproved and semi-improved neutral grassland, semi-natural broadleaved woodland, scrub and amenity grassland

Species

19. NBN Gateway holds records for protected and/or notable species within the 10km grid square ST65 in which the site lies. These records are given in Appendix IV; in summary key records include house sparrow, west European hedgehog (1 km from the site), otter (within 1 km of the site), fresh water white-clawed crayfish (within 1 km of the site) and three species of bats including lesser horseshoe, noctule and soprano pipistrelle, as well as further plant and invertebrate species.
20. BRERC (August 2009) holds records for protected and/or notable species within the 1 km of the site. These records are given in Appendix IV; in summary key records include kingfisher (0.5 km south-east of the site), hedgehog (0.3 km south-east), badger (0.4 km north-west), slow worm (1 km from the site), and brown trout, as well as further plant and invertebrate species.

Habitats

21. Urban environments comprising residential properties with associated gardens and infrastructure lie to the west and south of the site. The River Somer (SNCI) flows through 100 Withes Park site and forms part of the boundary of Cautletts Close site. Grassland playing fields and hedgerows lie immediately to the east and north.

Ecological Field Survey

22. The following habitat types were recorded on site, and their distribution is mapped on Figures 2 (100 Withes Park) and 3 (Cautletts Close). Adjacent habitats are also described.

100 Withes Park

- Buildings, gravel and hard-standing
- Amenity grassland, planting and trees
- River Somer
- Boundaries

Buildings, Gravel and Hard-standing

23. Two buildings are present on site: the main property (Building 1) and a shed (Building 2). Building 1 is a one and two-storey 1960s property with rendered walls and stone cladding. The building has a chimney with lead flashing, a pitched clay tiled roof and a conservatory. The exterior appears to be in good condition with no obvious gaps. Building 2 is a small storage shed located to the south-west of the property, constructed from wood panelling with a pitched felt roof. The building appears to be well sealed and in good condition with no windows and a locked door.
24. A flagstone patio and narrow path are located within the garden to the rear of Building 1. A large tarmac drive is located at the front of the building. A wooden bridge crosses the River Somer on site.
25. A large area of gravel is located in the south-west of the site. This area is used for amenity purposes and includes a bench and an outdoor lamp post.

Amenity Grassland, Planting and Trees

26. Well managed amenity grassland (garden) is located at the front and the rear of the property. Amenity planting is located on the boundaries and within beds on the site.
27. Immature to semi-mature elder trees overhang the River Somer in the south of the site. Bird boxes were noted on several of these trees.

River Somer

28. The River Somer is an SNCI, which runs through the site. The river channel is approximately 4m wide and 30cm deep, with ripples, pools and a gravel, cobble and pebble bed. It features reinforced vertical stone walls on its banks. The water quality of the river appears to be good. A small weir is located on the eastern boundary of the site.

Boundaries

29. Fencing and stone walls form the east and west boundary of the site. A laurel hedge is located on the northern boundary of the site, and a wire fence with hedgerow forms the southern boundary of the site.

Adjacent Habitats

30. Residential buildings with associated gardens and infrastructure lie to the north, east and west of the site. An area of scrub lies immediately south of the site beyond which lies an arable field (Cautletts Close development site).

Land at Cautletts Close

- Arable
- Woodland
- River Somer
- Tall herbs and scrub
- Hedgerows
- Ditches

Arable

31. The site is dominated by a large arable field, formerly used for growing maize, with patches of semi-improved grassland dominated by Yorkshire-fog. No marginal vegetation is located on the north, east or west boundary of the arable field and the crops extend up to the field boundary.

Woodland

32. Semi-natural broadleaved woodland is located in the south-east of the site between the River Somer and the arable field. The woodland comprises immature and semi-mature trees including ash and elder with occasional holly and ground flora, including ivy and creeping buttercup, and large areas of bare earth. The area appears to be used as a bike track with well-used man-made ridges and dips.

River Somer

33. The River Somer SNCI forms part of the western boundary of the site. The channel is approximately 2-3m wide and up to 80cm deep with an earth, gravel, pebble and cobble bed. The water quality appears to be good and the channel appears to have a natural meander with sand bars, ripples, pools and overhanging trees with exposed roots. The banks are steep and earthy with little vegetation including ivy,

pendulous sedge and hart's-tongue. Evidence of erosion was noted on the banks of the river channel in the south of the site, and rock filled gabions are located on a meander, probably to protect a nearby residential property.

Tall Herbs and Scrub

34. An area of tall herbs and scrub lies in the south-west of the site, including cleavers, common nettle and bramble. Scattered immature and semi-mature trees and shrubs are present including ash, hazel and hawthorn. A well used footpath runs through to an area of woodland.
35. A second area of dense scrub is located on the western boundary of the site, with species including bramble and blackthorn. Scrub and tall herbs are located on the southern boundary of the site, forming a narrow field margin adjacent to the hedgerow.

Hedgerows

36. Hedgerows form the northern, eastern and southern boundaries and part of the western boundary of the site. These have been numbered from 1 to 7 and are described below (for locations see Figure 3).
37. Hedgerow 1 is a dense hedgerow located on the eastern boundary of the site and comprises an embankment with species including hazel, blackthorn, hawthorn and bramble with a semi-mature ash tree and a hazel coppice.
38. Hedgerow 2 is a dense hedgerow located on the southern boundary of the site. Species include bramble, hawthorn and blackthorn.
39. Hedgerow 3 is located on a wire fence in the south-western corner of the site. It is sparse in places with species comprising hazel, hawthorn and bramble.
40. Hedgerow 4 forms the boundary between the woodland and the arable field. The hedgerow is densely vegetated; species include bramble, hawthorn and blackthorn, with a wire fence.
41. Hedgerow 5 is located on the western boundary of the site and comprises bramble, blackthorn and hawthorn. A large area of scrub lies between part of this hedge and the arable field.
42. Hedgerow 6 is a non-native cypress hedgerow which forms the boundary between the arable field and a residential property in the north-west of the site.
43. Hedgerow 7 forms the northern boundary of the site and comprises blackthorn, hawthorn, elder and bramble. An embankment appears to be present on the

northern aspect of the hedgerow. Mammal tracks were noted at the eastern edge of the hedgerow.

Ditches

44. A wet ditch runs adjacent to Hedgerow 2 in the south-east corner of the site. This ditch dries up as it progresses west, and appears to drain into the River Somer. Several piles of deadwood and rubble are located on the southern boundary of the site (Target Note 1, Figure 3). These piles lie adjacent to the dry ditch opposite residential properties. A further dry ditch is located adjacent to Hedgerow 6 in the north-west corner of the site.

Adjacent Habitats

45. Well managed amenity grassland currently used as playing fields are located to the north and east of the site. A sports club and car park are located to the north of the site. Residential areas, with associated gardens and infrastructure, are located to the south and west of the site. Several compost heaps were noted within adjacent residential gardens (Target Note 2, Figure 3).

Field Observations and Consideration to Other Protected/Notable Species

Flora

46. No species listed upon Schedule 8 of the Wildlife and Countryside Act 1981 (protected plants), were noted during the survey. No other notable species of flora were observed, and the current land use and management of the site limits potential for notable species.
47. No invasive species listed on Schedule 9 of the amended Wildlife and Countryside Act 1981 were noted on the site during the survey, although a detailed survey was not carried out.

Mammals

Badger

48. No evidence of badger was noted during the Phase I habitat survey, such as setts, foraging signs or latrines. 100 Withes Park site provides limited foraging opportunities in the form of hedgerows and amenity grassland. Land at Cautletts Close provides foraging opportunities for badger in the form of arable land, tall herbs and scrub, and sections of hedgerow. Several mammal paths were noted, which could be attributable to badger. BRERC (2009) hold records of badger 0.4km north-west of the site.

Bats

49. The buildings within 100 Withes Park are well maintained, in good condition, occupied and subject to disturbance in the form of artificial lighting (from the site itself and the surrounding urban areas). No obvious access opportunities were noted during the survey, however the buildings are of a design that offers some potential opportunities to bats (pitched roofs for example).
50. Some trees located within the woodland surrounding the River Somer support some features, such as small rot holes and split limbs that could offer suitable roost sites for bats. These trees have good connectivity with suitable surrounding habitats which gives these trees some potential to support roosting bats. Foraging and commuting opportunities are available on site, including arable land, woodland, scrub and hedgerow habitats.

Other Mammals

51. The arable land, woodland, hedgerows and scrub within Cautletts Close site, and the grounds of 100 Withes Park, provide suitable foraging habitat for small mammals such as hedgehog. Hedgehog has been recorded 0.3km from the site. The River Somer provides suitable habitat for otter, recorded within 1km of the site (NBN Gateway), in the form of sand bars, overhanging branches and deadwood. This habitat is shaded with little bank-side vegetation, reducing its potential to support water vole.
52. Suitable habitat for dormouse was noted on the Cautletts Close site in the form of hedgerows supporting hazel and bramble, and limited suitability is provided by the presence of scrub and a small patch of woodland. The site has good connectivity with suitable surrounding habitats, including Silver Street Woodland Local Nature Reserve 0.16km east of the site. No suitable habitat to support dormouse was recorded at 100 withes Park. No records of dormouse were included within the desktop study results.

Birds

53. Magpie was recorded on site during the survey and bird nesting boxes were noted on trees within 100 Withes Park. The woodland, tall herbs and scrub and hedgerows within Cautletts Close, and trees within the grounds of 100 Withes Park, provide suitable nesting opportunities for common bird species, and the River Somer provides suitable habitat for kingfisher. Kingfisher has been recorded 0.5km from the site (BRERC 2009). The arable land on site provides suitable foraging habitat for common arable and over wintering bird species, and nesting habitat for ground nesting birds.

Reptiles and Amphibians

54. The amenity grassland and hard-standing within 100 Withes Park provide limited basking and foraging habitat for reptiles, however these areas are subject to high levels of disturbance. The small hedgerow on the eastern boundary of this site provides limited refuge habitat for reptiles. Foraging opportunities are provided within land at Cautletts Close in the form of arable land and woodland. The exposed tree roots within the woodland as well as the tall herbs and scrub, and hedgerows on site provide suitable hibernation habitat for reptiles. Further hibernation habitats are provided in the form of compost heaps and piles of deadwood and rubble, which are particularly suitable for slow worm and as egg-laying sites for grass snake. Slow worm has been recorded within 1km of the site (BRERC 2009). The exposed mud within the woodland also provides suitable basking habitats for reptiles.
55. A small wet ditch is located on the southern boundary of Cautletts Close, which is surrounded by marginal tall herb vegetation. This offers some suitability as aquatic habitat for amphibians, including great crested newt. This ditch appears to drain into the River Somer and was partially dry at the time of the survey. The vegetation surrounding the ditch provides suitable foraging habitat for amphibians. The hedgerows on site provide connectivity with suitable surrounding habitats. Exposed tree roots within the woodland surrounding the River Somer provide further hibernation opportunities for amphibians; however these are limited by the low level of ground flora within the woodland. No ponds are present on site and none are evident within 500m of the site referring to online aerial photographs (Local Live website).

Invertebrates

56. Suitable habitat for invertebrates on site includes the River Somer, woodland, tall herbs and scrub, hedgerows and arable land. The site has a moderate level of habitat structure and diversity, and is likely to support both terrestrial and aquatic invertebrates.

Crustaceans

57. The River Somer provides suitable habitat to support white-clawed crayfish. The stone walls lining the river at 100 Withes Park and the earth banks lining the river at Cautletts Close provide suitable refuge habitat for white-clawed crayfish. The river appears to have good water quality.

Fish

58. The River Somer provides suitable habitat for species such as bullhead, brown trout and river lamprey. Brown trout has been recorded 0.4km south-west of the site (BRERC 2009).

ECOLOGICAL EVALUATION

Component Habitats

59. Table 3 below provides an evaluation of habitats on site and adjacent habitats, based upon the results of the desktop study and ecological field survey undertaken.

Table 3. Ecological Evaluation of Habitats

Habitat	Qualifying Criteria	Ecological Value
100 Withes Park		
Buildings, gravel and hard-standing	The buildings have low potential to support roosting bats. Hard-standing and gravel provide limited basking opportunities for reptiles Dominant habitat on site and in the local area	Site Value
Amenity grassland, planting and trees	Grassland and planting provides limited suitable basking habitat for reptiles and limited foraging habitat for small mammals. The trees on site have low suitability for roosting bats. Nesting bird boxes present Common in the local area	Site Value
River Somer	The river flows through the site Reinforced stone wall banks provide refuge opportunities for freshwater white-clawed crayfish. River provides suitable opportunities for otter, water vole, kingfisher, brown trout and aquatic invertebrates, and is a SNCI	County Value
Boundaries	East and west boundaries comprise fencing and stone walls. A non-native hedgerow forms the north boundary	Negligible Value

Habitat	Qualifying Criteria	Ecological Value
	<p>A wire fence and native hedgerow forms the southern boundary. Hedge provides limited foraging and refuge habitat for hedgehog, small mammals, reptiles, nesting birds and invertebrates</p> <p>Common in the local area</p>	Site Value
Cautletts Close		
Arable	<p>Dominant habitat on site, provides suitable foraging habitat for badger, bats, small mammals, reptiles, common arable birds, overwintering birds, nesting opportunities for ground nesting birds, and opportunities for invertebrates</p> <p>Common and widespread in the local area</p>	Site Value
Woodland	<p>Provides foraging and roosting opportunities for bats, foraging opportunities for small mammals, refuge and basking opportunities for reptiles, refuge for amphibians, foraging opportunities for birds, and opportunities for invertebrates</p> <p>Uncommon in the local area, good connectivity with surrounding habitats</p>	Local Value
River Somer	<p>River Somer forms the western boundary of the site and is a SNCI. Provides good connectivity with surrounding habitats, commuting habitat for bats, suitable habitat for otter, water vole, kingfisher, brown trout, freshwater white-clawed crayfish and aquatic invertebrates</p> <p>Uncommon in the local area, good connectivity with surrounding habitats</p>	County Value
Tall herbs and	Provides suitable foraging habitat for badger	Local Value

Habitat	Qualifying Criteria	Ecological Value
scrub	<p>and bats, refuge and foraging habitat for hedgehog and small mammals, hibernation habitat for reptiles and amphibians, nesting and foraging birds and common invertebrates</p> <p>Relatively uncommon in the local area</p>	
Hedgerows	<p>Provide suitable habitat for foraging badger, foraging and commuting bats, refuge for hedgehog, dormouse and small mammals, nesting and foraging birds, hibernating and foraging reptiles and amphibians, common invertebrate species</p> <p>Forms a part of a wider hedgerow network</p>	Local Value
Ditches	<p>Wet ditch is likely to be seasonal and has low potential to support amphibians such as great crested newt. Deadwood piles adjacent to the dry ditches provide suitable hibernation habitat for hedgehog, small mammals, reptiles and amphibians</p>	Site Value
Adjacent habitats	<p>Well managed amenity grassland currently used as playing fields are located to the north and east of the site, providing limited suitable habitat for foraging badgers, foraging bats and birds, basking and foraging reptiles and common invertebrate species. A sports club and car park are located to the north of the site</p> <p>Residential areas, with associated gardens and infrastructure located to the south and west of the site provide limited habitat for badger, bats, small mammals, reptiles, birds and common invertebrates. Several compost heaps were noted within adjacent residential gardens, providing suitable refuge habitat for</p>	Local Value

Habitat	Qualifying Criteria	Ecological Value
	amphibians and reptiles such as slow worm and grass snake Common and widespread in the local area	

Overall Site Evaluation

60. The site is of moderate size in context with the surrounding residential units to the north and south and supports a moderate diversity of habitats. The River Somer and hedgerows connect the site with surrounding habitats. The habitats on site, namely the woodland, hedgerows, scrub, trees and river, generally have a moderate level of naturalness and fragility. The river and also the trees, hedgerows and scrub, add permanence to the site.

61. The ecological interest of the site, separated into 100 Withes Park and Cautletts Close, is related to:

100 Withes Park -

- The low potential of buildings and trees to support roosting bats
- The suitability of the site to support reptiles
- The suitability of the site to support hedgehog
- The suitability of the site to support nesting birds
- The presence of the River Somer, which is an SNCI, and is suitable to support otter, water vole, kingfisher, brown trout and white-clawed crayfish

Cautletts Close -

- The low potential of the trees to support roosting bats
- The suitability of the site to support foraging and commuting bats
- The low suitability of the site to support dormouse
- The suitability of the site to support reptiles and amphibians
- The suitability of the site to support hedgehog
- The suitability of the site to support nesting birds
- The suitability of the site to support foraging and commuting badger
- The hedgerow network, and woodland and scrub on site

- The presence of the River Somer, which is an SNCI, and is suitable to support otter, water vole, kingfisher, brown trout and white-clawed crayfish
62. Based on the desktop study and survey results and assessment of the site, the habitats present on site are of ecological value at a Site (buildings and amenity grassland on the 100 Withes Park site and arable habitat on the Cautletts Close site, for example) to County level (River Somer).

ECOLOGICAL CONSIDERATIONS AND RECOMMENDATIONS

63. This section provides considerations in relation to the ecology of the site and any adjacent habitats that should be considered within development proposals to ensure that impacts on ecology are avoided and / or mitigated within the scheme.

Habitats

Hedgerows

64. It is recommended that hedgerows be retained and protected on site, where possible, and that a detailed hedgerow survey be undertaken of hedgerows within the Cautletts Close site to establish the ecological importance of the hedgerows under the Hedgerows Regulations 1997.

River Somer SNCI

65. The development proposals include the construction of an access road across the river. Prior to any works commencing, further protected species surveys should be undertaken (refer to sections below) to inform the development design and mitigation, as appropriate. As a minimum, a suitable buffer should be retained between any development and the river, with existing scrub and woodland habitats retained within this buffer. New structures spanning the river should be of a suitable design to allow the continued movement of wildlife beneath.

Species

Bats

66. All British species of bat and their place of shelter are protected under the Wildlife & Countryside Act 1981 (as amended) and the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) from deliberate capture, injury and killing, intentional or reckless disturbance, intentional or reckless obstruction of access to any structure or place which any such animal uses for shelter or protection, and deliberate damage or destruction of a breeding site or resting place. This includes

trees and applies throughout the year whether bats are present or not at the time of survey or work being carried out.

67. The buildings within 100 Withes Park have low potential to support roosting bats, and it is recommended that a daytime assessment and survey of these buildings be undertaken to assess the use, if any, of these buildings by bats. This survey will require internal access to loft spaces, where possible. Several semi-mature and mature trees within the woodland surrounding the River Somer have low potential to support roosting bats. It is recommended that the daytime bat assessment and survey include these trees.
68. The hedgerows and woodland on site provide suitable habitats for foraging and commuting bats. Lesser horseshoe, noctule and soprano pipistrelle bats have been recorded within 4km of the site. It is recommended that a bat activity survey be undertaken of the site to establish its level of use by foraging and commuting bats.

Badger

69. The Protection of Badgers Act 1992 makes it illegal to wilfully kill, injure or take any badger, or attempt to do so and it is an offence to intentionally or recklessly damage, destroy or obstruct access to any part of a badger sett.
70. No badger setts were noted on site and given the site provides only limited suitable habitat for foraging and commuting, no further surveys are recommended for this species. However, design plans for the site should consider the inclusion of green corridors around the site to maintain habitat connectivity and the planting of shrubs, such as fruit bearing species, to enhance foraging opportunities for badger.

Otter and Water Vole

71. Otter is listed on Appendix I of CITES, Appendix II of the Bern Convention and Annexes II and IV of the Habitats Directive. It is protected under Schedule 5 of the WCA 1981 and Schedule 2 of the Conservation (Natural Habitats, etc.) Regulations, 1994 (Regulation 38). The Water Vole is a scheduled species listed under Schedule 5 of the Wildlife and Countryside Act 1981. This legislation affords protection to habitats used by this species for shelter or protection. The Water Vole itself is included in the UK BAP priority species list (Annexe 3, List 1).
72. The River Somer provides suitable habitat to support otter and water vole. The development proposals include the construction of an access road across the river. It is recommended that an otter and water vole survey be undertaken to establish presence and the level of use of the river by these species, to inform design and mitigation.

Dormouse

73. The dormouse is listed on Appendix 3 of the Bern Convention and Annex IVa of the EC Habitats Directive. It is protected under Schedule 2 of the Conservation (Natural Habitats, etc.) Regulations, 1994 (Regulation 38) and Schedule 5 of the WCA 1981.
74. Trees and hedgerows on site provide suitable habitat for dormouse, and these features should be retained and protected under the development proposals, where possible. It is recommended that a dormouse survey, including nest tube survey (April-November) and a nut search (September-November), is undertaken to establish the presence and the level of use of the site by dormouse, to inform design and mitigation.

Other Mammals

75. Hedgehog (a UK BAP species) and small mammals may use the site for foraging and refuge. A Precautionary Method of Works (PMW) should consider their presence and methods to remove risk to these species during any site clearance works. This could appropriate timing of works and hand searches prior to vegetation clearance.

Birds

76. In Britain all wild birds are granted legal protection under the Wildlife and Countryside Act 1981 (as amended). This legislation protects birds, their eggs and nests while being built or whilst in use. Legislation involving birds has implications on the timing of vegetation clearance, which should avoid the nesting season where possible (generally occurring between March and September).
77. The River Somer provides suitable habitat for kingfisher. It is recommended that a kingfisher survey of the river banks be undertaken as part of the otter and water vole survey, including a search for burrows, to establish presence and the level of use of the river by kingfisher, to inform design and mitigation.
78. The hedgerows, woodland, arable habitat and tall herbs and scrub provide suitable nesting habitat for birds. Bird nesting boxes were noted on trees within 100 Withes Park. A PMW could include appropriate timing of vegetation clearance, and provision of an Ecological Clerk of Works to ensure any nests that are present are not disturbed during works.

Reptiles and Amphibians

79. Common species of reptile are partially protected under the Wildlife & Countryside Act 1981 (as amended), under which it is an offence to intentionally

kill or injure a reptile. All species of common reptile are UK BAP species and are a material consideration in respect to planning issues.

80. Great crested newt is protected under the Wildlife & Countryside Act 1981 (as amended) and the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) from deliberate capture, injury and killing, intentional or reckless disturbance, intentional or reckless obstruction of access to any structure or place which any such animal uses for shelter or protection, and deliberate damage or destruction of a breeding site or resting place. Common toad is a UK BAP species and is a material consideration in respect to planning issues.
81. The hedgerows and tall herb and scrub provide suitable refuge and foraging habitats for reptiles. If the development plans include large-scale removal of these features, it is recommended that a reptile survey be undertaken to establish the level of use of the site and to inform mitigation. If only small sections of suitable habitats will be affected, then the PMW should consider the presence of reptiles and include measures for their protection.
82. The partially wet ditch in the southern boundary of the site provides low suitability to support amphibians, such as great crested newt. The proposed development works are likely to result in the loss of this ditch and/or suitable refuge habitat (tall herbs and scrub). Whilst this is unlikely to affect the favourable conservation status of this species (if present) this habitat is protected whether great crested newts are present at the time of works or not. If great crested newts are present, disturbance is also unlikely to be avoidable. Where damage or destruction of suitable refuge and disturbance of great crested newts cannot be avoided it will be necessary to determine the presence or likely absence of this species. It is recommended that a great crested newt Habitat Suitability Index (HSI) survey be undertaken to establish the likelihood of the ditch supporting great crested newts. This should be carried out in March.
83. Depending on the results of this assessment, further surveys may be recommended to determine presence or likely absence of great crested newts and inform the need for a European Protected Species (EPS) licence. If required, great crested newt presence/absence surveys comprise four site survey (each comprising an evening and dawn visit) to be undertaken between mid-March and mid-June, with at least two of the four surveys being undertaken between mid-April and mid-May. If presence is confirmed then an additional two surveys are required to establish the population size.

84. If great crested newts are present and suitable resting places cannot be avoided during the works, then an EPS licence will be required. Such licences can only be obtained once planning permission has been granted (with no outstanding conditions relating to nature conservation), and Natural England aim to process licence applications within 30 working days. Any licence application will need to be accompanied by a detailed mitigation strategy outlining how newts will be protected during the works, and how the population will be maintained at favourable conservation status in the long-term.

Freshwater White-clawed Crayfish

85. Freshwater white-clawed crayfish is listed in Appendix III of the Bern Convention and Annexes II and V of the EC Habitats Directive. It is protected under Schedule 5 of the Wildlife and Countryside Act.
86. Suitable habitat for freshwater white-clawed crayfish is provided by the River Somer within the development site. The development proposals include the construction of an access road across the river at 100 Withes Park. It is recommended that a freshwater white-clawed crayfish survey be undertaken to establish the use of the River Somer by this species and to inform mitigation, if present.

ECOLOGICAL OPPORTUNITIES

87. There is opportunity to incorporate biodiversity enhancing features into any new development design in order to enhance the site for local wildlife and to meet criteria set out within local and national planning policies and objectives set out within the UK and local Biodiversity Action Plans for habitats and species.
88. All hedgerows and trees on site should be retained where possible and incorporated within the new development. If this is not possible, then consideration should be given to incorporating additional tree planting within the development.
89. A buffer around the River Somer should be retained and protected as part of the development plans. Consideration should be given to a sustainable drainage system on site, as at least one ditch on the southern boundary of the site appears to drain into the river. Pollution control during construction and operational phases of development will be necessary to avoid risk of pollution entering the river.
90. Consideration should be given to installing built-in bird and bat features within new buildings on site to increase nesting/roosting opportunities.
91. It is recommended that ecological input be sought for any landscape plans and planting schemes proposed on the site in order to maximise the biodiversity

potential of the proposed development, for example, the planting of native, fruit bearing shrubs to provide foraging opportunities for badger and night scented species to attract invertebrates and provide foraging opportunities for bats and birds. Future management should aim to enhance the value of the site for wildlife whilst maintaining amenity function, such as leaving longer edge grassland zones (adjacent to boundaries and around the trees, for example) and rotational management of new planting.

LIMITATIONS OF SURVEY AND REPORT



92. This report records wildlife found during the survey and anecdotal evidence of sightings. It does not record any plants or animals that may appear at other times of the year and were therefore not evident at the time of visit. Some species that might use the site or be apparent at other times of year, or only in certain years, would not have been detected.
93. This report provides provisional ecological baseline for the site and should not be considered to be conclusive until the ecological considerations have been undertaken and all necessary further surveys completed. Likewise the ecological considerations at this stage are not necessarily final and may be subject to change or additional proposals made following the results of further surveys and any proposals for development.
94. The behaviour of animals can be unpredictable and may not conform to standard patterns recorded in current scientific literature. This report therefore cannot predict with absolute certainty that animal species will occur in apparently suitable locations or habitats or that they will not occur in locations or habitats that appear unsuitable.
95. The desk study can only provide information on species already recorded and cannot be taken to represent a complete overview of all species present in the survey site.
96. The contents of this report should be considered valid for up to 12 months; the site should be re-surveyed prior to construction works commencing should more than 12 months pass from the date of this survey.
97. The advice contained in this report relate primarily to factual survey results and general guidance only. On all legal matters you are advised to take legal advice.

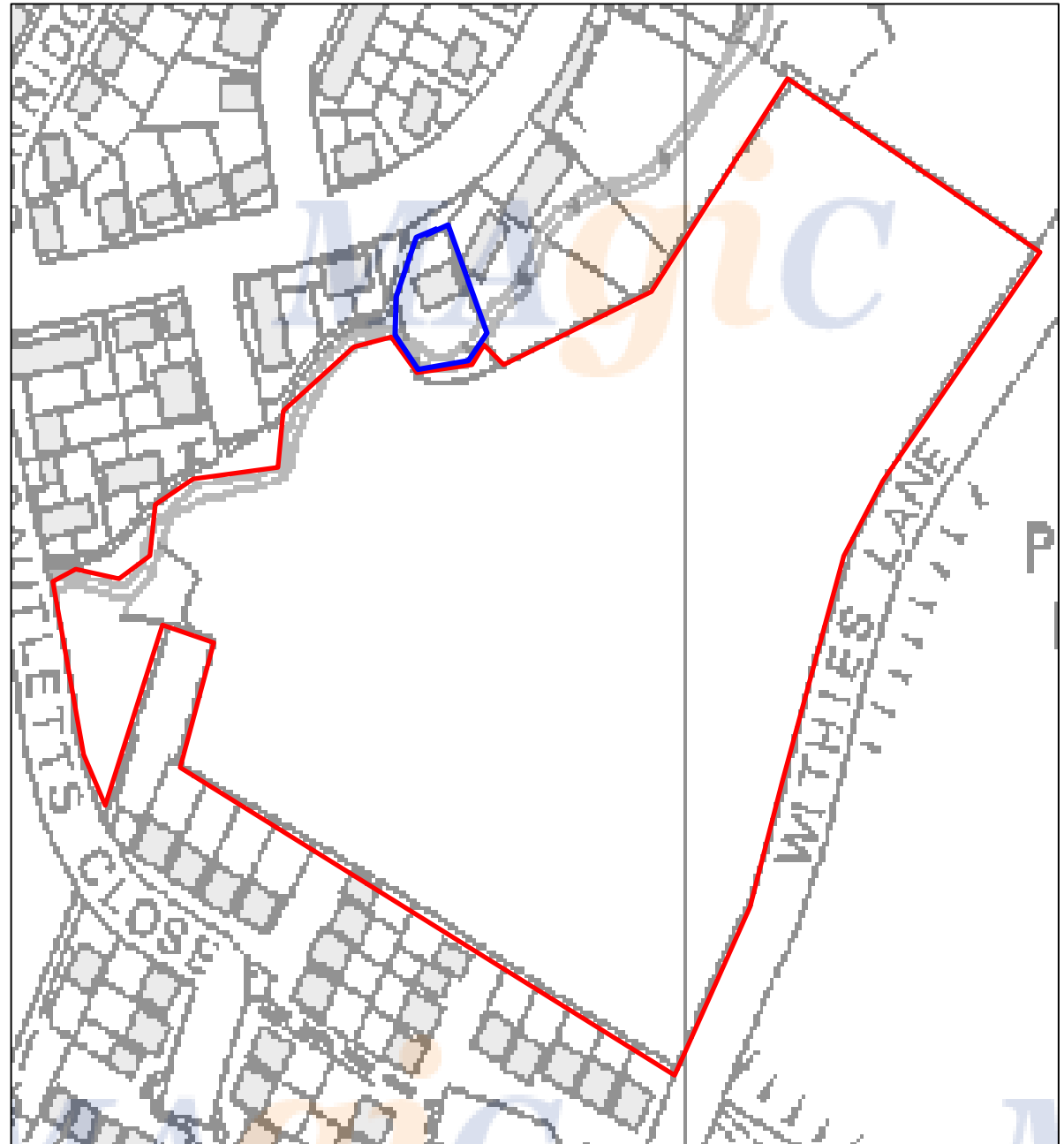


The Rickyard, Newton St Loe,
Bath BA2 9BT
Tel: 01225 874040 Fax: 01225 874554

Client	David Wilson Homes	
Project	Cautletts Close	
Title	Development site plan	
Date	Scale	Figure
February 2010	SCHEMATIC ONLY	I

Key














-  Cautletts Close site boundary
-  100 Withes Park site boundary

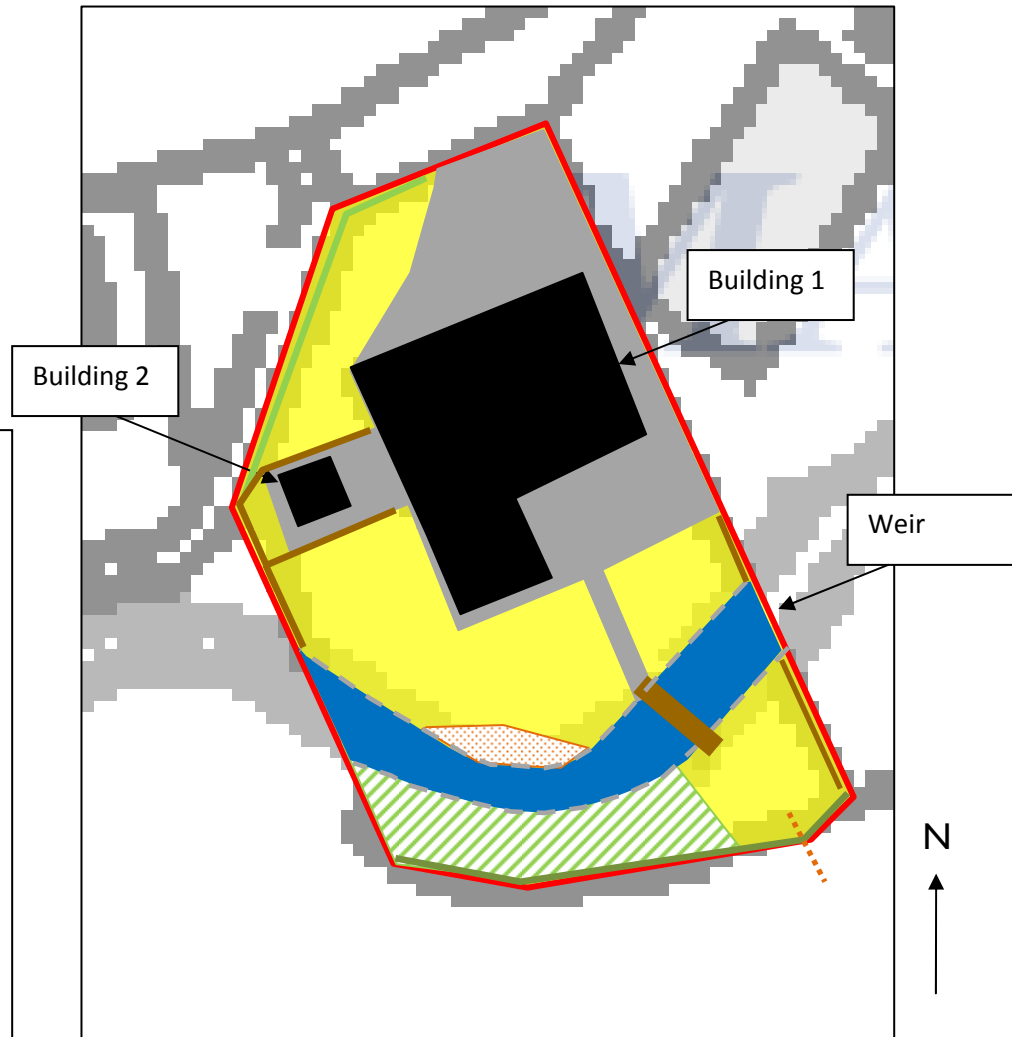


The Rickyard, Newton St Loe,
Bath BA2 9BT
Tel: 01225 874040 Fax: 01225 874554

Client	David Wilson Homes	
Project	Cautletts Close	
Title	100 Withes Park Phase I Plan	
Date	Scale	Figure
February 2010	SCHEMATIC ONLY	2

Key

-  Buildings
-  Hard-standing
-  Gravel with amenity planting
-  Trees and scrub
-  Native hedgerow
-  Non-native hedgerow
-  Fence/wall with amenity planting
-  Watercourse
-  Amenity grassland
-  Footbridge
-  Stone walls
-  Mammal track
-  Site boundary


















Reproduced from Ordnance Survey mapping of
the Controller of Her Majesty's Stationery
Office © Acc: 100011381

The Rickyard, Newton St Loe,
Bath BA2 9BT
Tel: 01225 874040 Fax: 01225 874554

Client	David Wilson Homes	
Project	Cautletts Close	
Title	Cautletts Close Phase I Plan	
Date	Scale	Figure
February 2010	SCHEMATIC ONLY	3

Key

 Arable	 Outflow pipe
 Hedgerow	 Mammal path
 Semi-natural woodland	 Target notes
 River Somer	 Site boundary
 Wet ditch	
 Dry ditch	
 Tall herb and scrub	
 Deadwood	
 Native hedgerow	
 Non-native/Cypress hedgerow	
 Rock filled gabion	



REFERENCES/BIBLIOGRAPHY

- Bat Conservation Trust (2007)** Bat surveys – Good Practice Guidelines. Bat Conservation Trust, London.
- English Nature (2003)** Science and Research at www.english-nature.org.uk
Updated in 2003.
- HMSO (1981)** *Wildlife and Countryside Act 1981 (and subsequent amendments)*. HMSO
- HMSO (1994)** *The Conservation (Natural Habitats, &c.) Regulations 1994* HMSO
- HMSO (1995)** *Biodiversity*. The UK Steering Group Report
- HMSO (2000)** *The Countryside and Rights of Way Act 2000* HMSO
- Institute of Ecology and Environmental Management (2006)** *Guidelines for Ecological Impact Assessment in the United Kingdom* Website – www.ieem.co.uk
- Joint Nature Conservation Committee (JNCC) (2007)** *Handbook for Phase I Habitat Survey – a Technique for Environmental Audit*. JNCC London. Second Edition. (Formerly Nature Conservation Committee, [1990])
- Mitchell-Jones A.J. (2004)** *Bat Mitigation Guidelines* English Nature
- Mitchell-Jones A.J. & McLeish A.P. (3rd Edition, 2004)** *The Bat Workers' Manual* Joint Nature Conservancy Committee
- Multi-Agency Geographical Information for the Countryside (MAGIC) Website** at www.magic.gov.uk
- National Biodiversity Network (NBN) Website** at www.nbn.org.uk
- ODPM (2005)** *Circular 06/05: Biodiversity and Geographical Conservation – Statutory Obligations and Their Impact Within the Planning System* TSO
- ODPM (2005)** *Planning for Biodiversity and Geological Conservation: A Guide to Good Practice* ODPM
- ODPM (2005)** *Planning Policy Statement 9: Biodiversity and Geological Conservation*. HMSO
- Ratcliffe, D. (1977)** *A Nature Conservation Review*. Volume I. CUP
- Stace, C. (1997)** *New Flora of the British Isles 2nd Edition*. Cambridge University Press
- TSO (2006)** *Natural Environment and Rural Communities Act* TSO

TSO (2007) *The Conservation (Natural Habitats, &c.) (Amended) Regulations 2007*
TSO

TSO (2009) *The Conservation (Natural Habitats, &c.) (Amended) Regulations 2009*
TSO

APPENDIX I: SPECIES LIST (SPECIES RECORDED ON SITE)**Flora****Common Name****Latin Name**

Ash	<i>Fraxinus excelsior</i>
Blackthorn	<i>Prunus spinosa</i>
Bramble	<i>Rubus fruticosus</i>
Cleavers	<i>Galium aparine</i>
Common nettle	<i>Urtica dioica</i>
Creeping buttercup	<i>Ranunculus repens</i>
Cypress species	<i>Cupressus species</i>
Elder	<i>Sambucus nigra</i>
Hart's-tongue	<i>Phyllitis scolopendrium</i>
Hawthorn	<i>Crataegus monogyna</i>
Hazel	<i>Corylus avellana</i>
Holly	<i>Ilex aquifolium</i>
Ivy	<i>Hedera helix</i>
Laurel	<i>Populus laurifolia</i>
Maize	<i>Zea mays</i>
Pendulous sedge	<i>Carex pendula</i>
Yorkshire-fog	<i>Holcus lanatus</i>

Fauna**Common Name****Latin Name**

Magpie	<i>Pica pica</i>
--------	------------------

APPENDIX II: DEFINING ECOLOGICAL VALUES

Institute of Ecology and Environmental Management

- I. The examples contained in the table below are only for general guidance and other considerations may apply, e.g. features of low value in isolation but which are subject to cumulative national decline may be afforded higher values in certain circumstances.

Level of Ecological Value	Examples of Criteria
International	<ul style="list-style-type: none"> • An internationally designated site or candidate site (SPA, pSPA, SAC, cSAC, Ramsar site, Biogenetic Reserve) • A sustainable area of a habitat listed in Annex I of the Habitats Directive, or smaller areas of such habitat that are essential to maintain the viability of a larger whole • A sustainable population of an internationally important species, e.g. a UK Red Data Book species, species listed under categories 1 or 2 of the UK BAP, or listed under Annex IV of the Habitats Directive • Sites supporting a breeding population of internationally important species or supplying a critical element of their habitat requirements
National	<ul style="list-style-type: none"> • A nationally designated site (SSSI, ASSI, NNR, MNR) or a discrete area that meets the selection criteria for national designation (e.g. SSSI selection guidelines) • A sustainable area of a priority habitat identified in the UK BAP, or smaller areas of such habitat that are essential to maintain the viability of a larger whole • A sustainable population of a nationally important species or a site supporting such a species, i.e. a

Level of Ecological Value	Examples of Criteria
	<p>species listed on Schedules 5 and 8 of the W&CA (as amended) which is a UK Red Data Book species that is not listed as being of unfavourable conservation status in Europe, of uncertain conservation status or of global concern in the UK BAP</p> <ul style="list-style-type: none"> • A non-Red Data Book species that is listed as occurring in 15 or fewer 10km squares in the UK (categories 1 and 2 of the UK BAP). Also sites supporting a breeding population of such a species or supplying a critical element of their habitat requirements
Regional	<ul style="list-style-type: none"> • Sustainable areas of key habitat identified in the relevant Regional BAP or smaller areas of such habitat that are essential to maintain the viability of a larger whole • Sustainable areas of key habitat identified as being of Regional Value in the appropriate Natural Areas profile • A population of a species listed as being nationally scarce (i.e. occurring in 16 - 100 10km squares in the UK, or in a Regional BAP or relevant Natural Area on account of its regional rarity or localisation. Sites supporting a breeding population of such a species or supplying a critical element of their habitat requirements • Sites, which exceed the County-level designations but fall short of SSSI selection guidelines, where these occur

Level of Ecological Value	Examples of Criteria
County/ Metropolitan	<ul style="list-style-type: none"> • Semi-natural ancient woodland greater than 0.25 ha • County/Metropolitan sites and other sites which meet the ecological selection criteria for designation • A sustainable area of habitat identified in a county BAP • A population of a species that is listed in a county/metropolitan 'red data book' or BAP on account of its regional rarity or localisation. Also sites supporting a breeding population of such a species or supplying a critical element of their habitat requirements
District	<ul style="list-style-type: none"> • Semi-natural ancient woodland smaller than 0.25 ha • Sustainable areas of habitat identified in a sub-county (district/borough) BAP or in the relevant Natural Area profile • Sites/features that are scarce within the district/borough or which appreciably enrich the district/borough habitat resource • A diverse and/or ecologically valuable hedgerow network • A population of a species that is listed in a district/borough BAP because of its rarity in the locality or in the relevant Natural Area profile because of its regional rarity or localisation. Also sites supporting a breeding population of such a species or supplying a critical element of their requirements

Level of Ecological Value	Examples of Criteria
Local	<ul style="list-style-type: none">• Areas of habitat considered to appreciably enrich the habitat resource within the context of the Parish or local neighbourhood, e.g. isolated species-rich hedgerows
Site	<ul style="list-style-type: none">• Small patches of poor semi-improved grassland, amenity grassland not used by Badgers
Negligible	<ul style="list-style-type: none">• Areas of little current or potential ecological value

APPENDIX III: AN ECOLOGICAL EVALUATION

The Criteria for Evaluation

1. The criteria for evaluation have been adopted from the widely used set developed by Ratcliffe (1977). These were originally conceived to provide a systematic framework for the selection of Sites of Special Scientific Interest (SSSI) by the Nature Conservancy Council (NCC), but have since been adopted and adapted widely by ecologists, for example in Local Authorities and Wildlife Trusts.

The criteria used in this report are drawn from these widely applied criteria. They are:

Size

2. In general, larger sites are more highly valued than smaller ones, all else being equal. However, relative size to similar sites and other local sites should be considered. The area of a site is also important in management terms, i.e. whether short-term neglect/disturbance or any small changes would lead to the loss of a site's interest.

Diversity

3. One of the most important site attributes is the variety of communities and species which is largely dependent on diversity of habitat. Large numbers of species, particularly when represented by large populations, are to be valued. Diversity can also be related to habitat instability that may affect management prescriptions.

Naturalness

4. Ecosystems least modified by man tend to be rated more highly. However, most sites are influenced by man, the degree and nature of which is important.

Fragility

5. This reflects the degree of sensitivity of habitats, communities and species to environmental change. Fragile sites often represent ecosystems that are highly fragmented, dwindling or difficult to re-create.

Typicalness

6. The typical and commonplace within a field of ecological variation are also of value.

Recorded History

7. The existence of a scientific record of long-standing adds considerably to the value of a site.

Permanence

8. A site that has been occupied by a semi-natural habitat for a long time is usually more valuable than one that has only recently arisen. This is because they have had time to acquire rich assemblages of plants and animals.

Lack of Modification

9. Adverse influences from humans, such as inappropriate management regimes and pollution, will reduce the quality of an area.

Rarity

10. Rarity is concerned with communities and habitats as well as species. The presence of rare species adds to overall ecological value especially when a habitat also ranks highly on other criteria. The habitat type too may also be nationally or regionally rare.

Position in an Ecological Unit

11. In the event of two sites being of equivalent intrinsic value, the close proximity of one site to a highly rated example of another type increases the value of the site. The presence of other areas of semi-natural habitat adjacent or close to a site enhances the value of both habitats.

Potential Value

12. Certain sites could, through appropriate management or even natural change, eventually develop a nature conservation interest substantially greater than that existing at present.

Intrinsic Appeal

13. While science may view all creatures as equal, pragmatism dictates that in nature conservation it is realistic to give more weight to the more popular appeal of some species, groups or habitats than others.

These criteria provide a useful basis against which to evaluate the intrinsic ecological quality of a site, but in an urban area it is also important to consider the value of an area to the local people (GLC 1985). Thus the appeal of a site, its educational and amenity value, as well as its accessibility as a wildlife area, need to be included in the evaluation.

14. The survey results were assessed and evaluated using these criteria as a guide.

APPENDIX IV: SUMMARY OF DESK STUDY SPECIES RECORDSProtected and/or Notable Species Records, NBN Gateway (January 2010)

98. NBN Gateway holds records for protected and/or notable species within the 10km grid ST65 in which the site lies. These records are given in the table below. Only those records from 2000 onwards and located either within the 10km grid square or within 2km of the site (4km for bats) are included. Distances calculated are approximations.

Table 1: Protected and/or Notable Species Records (NBN, February 2010)

Species	Distance from Site
Birds	
House sparrow	Within 100m of the site
yellowhammer	2km north-west of the site
Mammals	
European otter	Within 1km of the site
Lesser horseshoe bat	3km north-east of the site
Noctule bat	3km north-east of the site
Soprano pipistrelle	3km north of the site
West European Hedgehog	Within 1km of the site
Amphibians	
Common toad	2km north of the site
Invertebrates	
Wall	Within 10km of the site
Cinnabar	Within 2km of the site
Chalk carpet	Within 2km of the site
Dot moth	Within 2km of the site
Shaded broad-bar	Within 2km of the site
White ermine	Within 2km of the site
Crustacean	
Freshwater white-clawed crayfish	Within 1km of the site

99. BRERC holds records for protected and/or notable species within the 1km of the site. These records are given in Table 2 below.

Table 2: Protected and/or Notable Species Records (BRERC, February 2010)

Species	Distance from Site
Plants	
Herb Paris	0.8km north-west of the site
Dropwort	0.7km north-west of the site
Bluebell	0.4km north-east of the site
Solomon's seal	0.4km north-east of the site
Small leaved lime	0.4km north-east of the site
Birds	
Kingfisher	0.5km north-east of the site
Columbine	0.5km south-west of the site
Treecreeper	0.4km north-east of the site
House sparrow	0.6km north-east of the site
Mammals	
Hedgehog	0.3km south-east of the site
Badger	0.4km north-west of the site
Reptiles	
Slow worm	1 km north-west of the site
Invertebrates	
Grey dagger	0.8km north of the site
Beaded chestnut	0.8km north of the site
Garden tiger	0.8km north of the site
Mouse moth	0.8km north of the site
Mottled rustic	0.8km north of the site
Small square spot	0.8km north of the site
Rustic	0.8km north of the site
Rosy minor	0.8km north of the site
Shaded broad-bar	0.8km north of the site
White ermine	0.8km north of the site
Buff ermine	0.8km north of the site
Blood-vein	0.8km north of the site
Fish	
Brown trout	0.4km south-west of the site