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Appendix 1A

Ecology Survey - Extended Phase 1 Habitat Survey
'The Cottage', Spaniards Road, London, NW3 7JH

July 2014

**THE COTTAGE, SPANIARDS ROAD,
LONDON**

EXTENDED PHASE 1 HABITAT SURVEY

A Report to SidellGibson Architects

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May 2013

**THE COTTAGE, SPANIARDS ROAD,
LONDON**

EXTENDED PHASE 1 HABITAT SURVEY

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01 OF 02

01 SIDELLGIBSON ARCHITECTS
02 MIDDLEMARCH ENVIRONMENTAL LTD

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*The contents of this report are the responsibility of Middlemarch Environmental Ltd.
It should be noted that, whilst every effort is made to meet the client's brief,
no site investigation can ensure complete assessment
or prediction of the natural environment.*

Contract Number C113683

May 2013

EXECUTIVE SUMMARY

Middlemarch Environmental Ltd were commissioned by SidellGibson Architects to undertake an initial ecological appraisal of The Cottage site located on Spaniards Road in London. To fulfil this brief an ecological desk study and Extended Phase 1 Habitat Survey were undertaken. It is understood that the proposed development will involve the demolition of the existing residential building and the construction of a new residential property.

The ecological desk study revealed one nature conservation site with statutory protection and three nature conservation sites with non-statutory protection. These sites included Hampstead Heath Woods, designated as a SSSI and located 140 metres south of the survey area. The desk study also revealed records of protected and notable species including bats, amphibians, reptiles and birds.

The Extended Phase 1 Habitat Survey was undertaken on the 30th April 2013 by Sophie Meredith, Senior Ecological Consultant. At the time of the survey the site comprised an existing residential building with associated land to the front and rear, including a large grassland lawn with overgrown shrub planting, scattered scrub and a small pond. Broadleaved and coniferous trees were scattered throughout the survey area.

A small number of habitats present within the survey area have the potential to support protected and notable species including nesting birds. In addition, the maturity of some of the trees located on site means that they cannot be easily replaced and are therefore a notable consideration within their own right. As a result, to ensure compliance with wildlife legislation and relevant planning policy, the following works have been recommended:

- **Nesting Birds:** Vegetation clearance/removal of any trees should be undertaken outside the nesting bird season. The nesting bird season is weather dependent but generally extends between March and September inclusive. If this is not possible then any vegetation/trees that are to be removed or disturbed should be checked by an experienced ecologist for nesting birds immediately prior to works commencing.
- **Bats:** All recommendations made within the Initial Bat Survey Middlemarch Environmental Ltd Report number RT-MME-113683-02 must be adhered to.
- **Mammals including Badger and Hedgehog:** Any excavations that need to be left overnight should be covered or fitted with mammal ramps to ensure that any animals that enter can safely escape.
- **Cherry Laurel:** As this species is listed on the London Invasive Species Initiative (LISI), development works should not cause this plant to spread.

Additional recommendations regarding nature conservation sites, the protection of trees have been made within Section 6.2. Recommendations regarding habitat enhancement opportunities for wildlife have also been made within Section 6.2.

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1. INTRODUCTION

1.1 PROJECT BACKGROUND

In April 2013 SidellGibson Architects commissioned Middlemarch Environmental Ltd to undertake an initial ecological appraisal of the site of a proposed development at The Cottage site located on Spaniards Road, London. It is understood that the proposed works include the demolition of the existing building and the construction of a new residential property.

Middlemarch Environmental Ltd have also carried out an Initial Bat Survey at this site. The findings of this survey are detailed in Middlemarch Environmental Ltd Report RT-MME-113683-02.

To fulfil the above brief to assess the existing ecological interest of the site, a desk study and an Extended Phase 1 Habitat Survey were undertaken on 30th April 2013.

1.2 SITE DESCRIPTION

The development site is located on Spaniards Road, London at National Grid Reference TQ 266 872. The site measures approximately 0.5 hectares in size and is situated within a semi-residential area. Spaniards Road abutted the site to the west, a residential property was present to the south and the remaining areas of the site were surrounded by woodland.

At the time of the survey the site comprised a residential building with associated land to the rear and front. The land to the rear of the building comprised an amenity grassland lawn with overgrown shrub planting and scattered scrub. A small pond and an area dominated by daffodils and bluebells were also located within the rear garden of the property. The land to the front of the building comprised hardstanding and overgrown shrub planting. Broadleaved and coniferous trees were scattered throughout the survey area.

2. METHODOLOGIES

2.1 DESK STUDY

A desk study was undertaken to determine the presence of any designated nature conservation sites and protected species that have been recorded within a 1 km radius of the site. This involved contacting appropriate statutory and non-statutory organisations which hold ecological data relating to the survey area. Middlemarch Environmental Ltd then assimilated and reviewed the desk study data provided by these organisations.

The consultees for the Desk Study were:

- Natural England - *MAGIC* website for statutory conservation sites; and,
- Greenspace Information for Greater London.

The data collected from these consultees is discussed in Section 3. Selected raw data are provided in Appendix 1.

2.2 EXTENDED PHASE 1 HABITAT SURVEY

An Extended Phase 1 Habitat Survey was conducted following the methodology of the Joint Nature Conservation Committee (JNCC, 2010) and the Institute of Environmental Assessment (IEA, 1995). Phase 1 Habitat Survey is a standard technique for classifying and mapping British habitats. The aim is to provide a record of habitats that are present on site. During the survey, the presence, or potential presence, of protected species was noted. Data recorded during the field survey is discussed in Section 4.

Whilst every effort is made to notify the client of any plant species listed on Schedule 9 of the Wildlife and Countryside Act (1981, as amended) present on site, it should be noted that this is not a specific survey for these species.

3. DESK STUDY RESULTS

3.1 INTRODUCTION

All relevant ecological data provided by the consultees was reviewed and the results from these investigations are summarised below in Sections 3.2 and 3.3. Selected raw data is provided in Appendix 1.

3.2 NATURE CONSERVATION SITES

Reference to the Multi Agency Geographical Information for the Countryside (MAGIC) website and the local biodiversity information indicates that one nature conservation site with statutory protection and three nature conservation sites with non-statutory protection occur within a 1 km radius of the survey area. These sites are summarised in Table 3.1.

| Site Name | Designation | Proximity to Survey Area | Description |
|--|-------------|---|---|
| UK Statutory Sites | | | |
| Hampstead Heath Woods | SSSI | 140 m south | Long-established high forest woodlands with abundance of old and over-mature trees. The site also includes an adjacent small valley containing an acidic flush with developing bog-moss communities. |
| Non-statutory Sites | | | |
| Hampstead Heath | SMINC | Adjacent to northern and eastern boundaries | Open space which includes bogs as well as wide expanses of grassland and ancient woodland. |
| Turner's Wood | SBINC II | 330 m north west | Small ancient wood dominated by sessile oak <i>Quercus petraea</i> . It also supports a good range of mammals. |
| Highgate Golf Course | SBINC II | 900 m north east | Private golf course with grassland which contains plant species indicative of acid or wet grasslands. There is a small woodland of oak <i>Quercus robur</i> , birch <i>Betula pendula</i> and sycamore <i>Acer pseudoplatanus</i> . |
| Key: SSSI: Site of Special Scientific Interest SMINC: Site of Metropolitan Importance for Nature Conservation SBINC: Site of Borough Grade II Importance for Nature Conservation | | | |

Table 3.1: Summary of Nature Conservation Sites

Two additional areas of ancient woodland were identified within the 1 km search radius using the MAGIC website. These sites include Bishops Wood and Ken Wood.

3.3 PROTECTED SPECIES

Table 3.2 provides a summary of protected species records within a 1 km radius of the study area. It should be noted that the absence of records should not be taken as confirmation that a species is absent from the search area.

| Species | No. of Records | Most Recent Record | Proximity of Nearest Record to Study Area | Species of Principal Importance? | Local BAP? | Legislation / Conservation Status |
|---|----------------|--------------------|---|----------------------------------|------------|-----------------------------------|
| Invertebrates | | | | | | |
| Stag beetle <i>Lucanus cervus</i> | 1 | 2002 | 920 m south east | ✓ | ✓ | ECH 2, WCA 5 S9(5) |
| Reptiles | | | | | | |
| Adder <i>Vipera berus</i> | 1 | 1963 | * | ✓ | ✓ | WCA 5 S9(1) WCA 5 S9(5) |
| Amphibians | | | | | | |
| Common frog <i>Rana temporaria</i> | 12 | 2000 | 390 m north east | - | - | WCA 5 S9(5) |
| Common toad <i>Bufo bufo</i> | 10 | 2007 | 480 m east | ✓ | ✓ | WCA 5 S9(5) |
| Smooth newt <i>Lissotriton vulgaris</i> | 2 | 1997 | 625 m west | - | - | WCA 5 S9(5) |
| Mammals | | | | | | |
| <i>Bats</i> | | | | | | |
| Common pipistrelle <i>Pipistrellus pipistrellus</i> | 20 | 2009 | 150 m south | - | ✓ | ECH 4, WCA 5, WCA 6 |
| Unidentified bat <i>Pipistrellus</i> sp. | 30 | 2005 | 165 m east | # | ✓ | ECH 4, WCA 5, WCA 6 |
| Soprano pipistrelle <i>Pipistrellus pygmaeus</i> | 72 | 2011 | 220 m north east | ✓ | ✓ | ECH 4, WCA 5, WCA 6 |
| Noctule bat <i>Nyctalus noctula</i> | 18 | 2009 | 355 m east | ✓ | ✓ | ECH 4, WCA 5, WCA 6 |
| Daubenton's bat <i>Myotis daubentonii</i> | 26 | 2009 | 455 m east | - | ✓ | ECH 4, WCA 5, WCA 6 |
| Natterer's bat <i>Myotis nattereri</i> | 12 | 2008 | 455 m east | - | ✓ | ECH 4, WCA 5, WCA 6 |
| Brown long-eared bat <i>Plecotus auritus</i> | 35 | 2009 | 480 m east | ✓ | ✓ | ECH 4, WCA 5, WCA 6 |
| Lesser noctule <i>Nyctalus leisleri</i> | 7 | 2008 | 480 m east | - | ✓ | ECH 4, WCA 5, WCA 6 |
| Nathusius's pipistrelle <i>Pipistrellus nathusii</i> | 6 | 2008 | 480 m east | ✓ | ✓ | ECH 4, WCA 5, WCA 6 |
| Serotine bat <i>Eptesicus serotinus</i> | 6 | 2007 | 480 m east | - | ✓ | ECH 2, ECH 4, WCA 5, WCA 6 |
| Unidentified bat <i>Vespertilionidae</i> | 2 | 1985 | 655 m east | # | ✓ | ECH2,4 WCA5,6 |
| Unidentified bat <i>Myotis</i> sp. | 2 | 2005 | 885 m east | # | ✓ | ECH2,4 WCA5,6 |

Table 3.2: Summary of Protected/Notable Species Records Within 1 km Radius of Study Site
 (continues)

| Species | No. of Records | Most Recent Record | Proximity of Nearest Record to Study Area | Species of Principal Importance? | Local BAP? | Legislation / Conservation Status |
|--|----------------|--------------------|---|----------------------------------|------------|-----------------------------------|
| Mammals | | | | | | |
| <i>Other</i> | | | | | | |
| European Hedgehog <i>Erinaceus europaeus</i> | 4 | 2007 | 80 m north east | ✓ | ✓ | WCA 6 |
| <p>Key: *: Confidential record #: Dependent upon species</p> <p>ECH 2: Annex II of the European Communities Council Directive on the Conservation of Natural Habitats and Wild Fauna and Flora. Animal and plant species of community interest whose conservation requires the designation of Special Areas of Conservation. ECH 4: Annex IV of the European Communities Council Directive on the Conservation of Natural Habitats and Wild Fauna and Flora. Animal and plant species of community interest in need of strict protection. WCA 5: Schedule 5 of Wildlife and Countryside Act 1981 (as amended). Protected animals (other than birds). WCA 5 S9(1): Schedule 5 Section 9(1) of Wildlife and Countryside Act 1981 (as amended). Protected animals (other than birds). Protection limited to intentional killing, injury or taking. WCA 5 S9(5): Schedule 5 Section 9(5) of Wildlife and Countryside Act 1981 (as amended). Protected animals (other than birds). Protection limited to selling, offering for sale, processing or transporting for purpose of sale, or advertising for sale, any live or dead animal, or any part of, or anything derived from, such animal. WCA 6: Schedule 6 of Wildlife and Countryside Act 1981 (as amended). Animals which may not be killed or taken by certain methods. Local BAP: City of London Biodiversity Action Plan Note. This table does not include reference to the Berne Convention (Convention on the Conservation of European Wildlife and Natural Habitats), the Bonn Convention on the Conservation of Migratory Species of Wild Animals or the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).</p> | | | | | | |

Table 3.2 (continued): Summary of Protected/Notable Species Records Within 1 km Radius of Study Site

Whilst some historic records have been included within Table 3.2 (> 30 years old), others have been omitted due to the site not containing habitats suitable for use by these species. For example oil beetle *Meloe proscarabaeus*, which favours heaths, coastal cliffs and moors. Adder *Vipera berus* has been included within Table 3.2 due to potentially suitable habitats adjacent to the survey are (e.g. woodland edges).

In addition to those detailed within Table 3.2 the desk study identified records for fifty-three bird species including twenty species listed on the Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) such as black redstart *Phoenicurus ochruros*. In addition, a large number of species listed on the RSPB Red List (species of high conservation concern) were identified within the desk study. These species include tree pipit *Anthus trivialis*, lesser redpoll *Carduelis cabaret* and linnet *Carduelis cannabina*. Species listed on the RSPB Amber List (species of medium conservation concern) were also identified and included reed bunting *Emberiza schoeniclus*, red kite *Milvus milvus*, dunnock *Prunella modularis* and bullfinch *Pyrrhula pyrrhula*.

Records of the Lepidoptera species including white-letter hairstreak *Satyrrium w-album*, small heath *Coenonympha pamphilus*, and white admiral *Limenitis camilla* were also identified within the desk study.

Due to the volume of these records, they have been omitted from Table 3.2.

3.4 INVASIVE SPECIES

Table 3.3 provides a summary of invasive species records within a 1 km radius of the study area. It should be noted that the absence of records should not be taken as confirmation that a species is absent from the search area.

| Species | No. of Records | Most Recent Record | Proximity of Nearest Record to Study Area | Legislation / Conservation Status |
|--|----------------|--------------------|---|-----------------------------------|
| Small balsam <i>Impatiens parviflora</i> | 10 | 2003 | 98 m south east | WTD UK TAG, LISI |
| Cherry laurel <i>Prunus laurocerasus</i> | 13 | 2003 | 98 m south east | LISI |
| Rhododendron <i>Rhododendron ponticum</i> | 9 | 2003 | 217 m north east | WCA9, LISI |
| Evergreen oak <i>Quercus ilex</i> | 2 | 2003 | 269 m south | LISI |
| Green Alkanet <i>Pentaglottis sempervirens</i> | 5 | 2011 | 345 m south | LISI |
| Butterfly-bush <i>Buddleja davidii</i> | 6 | 2003 | 388 m south | LISI |
| Tree-of-heaven <i>Ailanthus altissima</i> | 2 | 2003 | 388 m south | LISI |
| Water fern <i>Azolla filiculoides</i> | 1 | 2008 | 785 m south | WTD UK TAG, WCA9, LISI |
| Snowberry <i>Symphoricarpos albus</i> | 6 | 2003 | 423 m east | LISI |
| Perfoliate alexanders <i>Smyrniium perfoliatum</i> | 1 | 2003 | 428 m south east | WCA9, LISI |
| Japanese knotweed <i>Fallopia japonica</i> | 5 | 2003 | 500 m south | WTD UK TAG, WCA9, LISI |
| False-acacia <i>Robinia pseudoacacia</i> | 5 | 2003 | 500 m south | LISI |
| Turkey oak <i>Quercus cerris</i> | 4 | 2003 | 500 m south | LISI |
| Rose-ringed parakeet <i>Psittacula krameri</i> | 6 | 2009 | 510 m south east | WCA9, LISI |
| Indiam balsam <i>Impatiens glandulifera</i> | 5 | 2003 | 682 m south | WTD UK TAG, WCA9, LISI |
| Montbretia <i>Crocsmia x crocosmiiflora</i> | 1 | 2003 | 689 m west | WTD UK TAG, LISI |
| Yellow archangel <i>Lamiastrum galeobdolon</i> subsp. <i>Argentatum</i> | 1 | 2003 | 689 m west | WCA9, LISI |
| Canadian waterweed <i>Elodea Canadensis</i> | 1 | 2003 | 783 m south | WTD UK TAG, WCA9, LISI |
| Least duckweed <i>Lemna minuta</i> | 1 | 2008 | 785 m south | WTD UK TAG, LISI |
| Goat's-rue <i>Galega officinalis</i> | 1 | 2003 | 850 m south | LISI |
| Cotoneaster <i>Cotoneaster</i> sp. | 1 | 2003 | 871 m south east | WCA9, LISI |
| Parrot's feather <i>Myriophyllum aquaticum</i> | 1 | 2003 | 922 m east | WTD UK TAG, WCA9, LISI |
| Key: WTD UK TAG: Water Framework Directive United Kingdom Technical Advisory alien species Group. WCA9: Schedule 9 of Wildlife and Countryside Act 1981 (as amended). Invasive, non-native, plants and animals. LISI: London Invasive Species Initiative | | | | |

Table 3.3: Summary of Invasive Species Records Within 1 km Radius of Study Site

4. EXTENDED PHASE 1 HABITAT SURVEY

4.1 INTRODUCTION

The results of the Extended Phase 1 Habitat Survey are presented in Section 4.2. An annotated Extended Phase 1 Habitat Survey Drawing (Middlemarch Environmental Ltd Drawing C113683-01-01) is attached in Appendix 2. This drawing illustrates the location and extent of all habitat types recorded on site. Any notable features or features too small to map are detailed using target notes.

The survey was carried out on 30th April 2013 by Sophie Meredith, Senior Ecological Consultant. Table 4.1 details the weather conditions at the time of the survey.

| Parameter | Condition |
|------------------|-----------|
| Temperature (°C) | 14 |
| Cloud (%) | 50 |
| Wind (Beaufort) | F1 |
| Precipitation | None |

Table 4.1: Weather Conditions During Survey Period

4.2 SURVEY CONSTRAINTS

No constraints were experienced during the survey.

4.3 HABITATS

The following habitat types were recorded on site during the field survey:

- Amenity Grassland;
- Building/Structures;
- Fence;
- Hardstanding;
- Introduced Shrub;
- Other habitat: area dominated by daffodils and bluebells;
- Scattered Broadleaved Trees;
- Scattered Coniferous Trees;
- Scattered Scrub;
- Standing Water; and,
- Wall.

These habitats are described below. They are ordered alphabetically, not in order of ecological importance.

Amenity Grassland

This habitat comprised a lawned area that dominated the central part of the site to the rear of the residential property. The grassland had not been recently managed. The sward was dominated by common grass species including meadow grass *Poa* sp., with occasional bramble *Rubus fruticosus* agg., dandelion *Taraxacum officinale* agg., cleavers *Galium aparine*, common nettle *Urtica dioica* and herb-Robert *Geranium robertianum*. Species consistent with the ground flora of the adjacent woodland had established around the edges of the grassland and included bluebell *Hyacinthoides non-scripta* and forget-me-not *Myosotis* sp.

Building/Structures

Dominating the northern part of the survey area was a large residential building with an adjoining garage. The building was of two-storey brick construction with a flat concrete and felted roof. The building featured steel single glazed windows which had been boarded up on the ground floor. The garage was of single-storey brick construction with a flat roof.

Located along the northern boundary was an arched entrance to an underground tunnel/storage area (Target Note 1). This tunnel extended under the adjacent road and was of brick construction. The brickwork was noted to be in poor condition with a number of cracks and areas of missing mortar.

Further details on the construction of these structures can be found in Middlemarch Environmental Ltd Initial Bat Survey report number RT-MME-113683-02.

Fence

Iron railings delineated the eastern and southern boundaries of the survey area adjacent to the woodland. Close-board wooden panel fencing delineated the western boundary and measured approximately 1.5 m in height with razor wire on top. The fencing on site was predominantly devoid of vegetation.

Hardstanding

This habitat comprised a concrete and paved area at the entrance of the site and a stepped decking area at the rear of the residential building. The hardstanding on site was predominantly devoid of vegetation.

Introduced Shrub

A cherry laurel *Prunus laurocerasus* bush was located within the south-western corner of the survey area (Target Note 7). In addition, overgrown flower beds were located towards the southern edge of the grassland area (Target Note 5). Species recorded included spotted-laurel *Aucuba japonica*, holly *Ilex aquifolium*, Oregon-grape *Mahonia* sp., spindle *Euonymus europaeus* and elder *Sambucus nigra*. Small overgrown flower beds were also located within the northern part of the survey area. Due to lack of management, tall ruderal species had established within the flower beds and included common nettle, forget-me-not and ash *Fraxinus excelsior* saplings.

Other habitat: area dominated by daffodils and bluebells

This habitat was located within the southern-most part of the survey area and formed the understorey of a group of lime trees. Species included bluebell and daffodil *Narcissus pseudonarcissus*. Small areas of cleared ground and a seating area were also present within this area.

Scattered Broadleaved Trees

A group of semi-mature to mature lime *Tilia* sp., trees were located within the southern part of the survey area (Target Note 6). These trees measured up to 20 metres in height and were generally in good condition although rot holes were noted within three of the trees. In addition, a semi-mature oak *Quercus* sp., tree was located along the eastern boundary. This tree measured approximately 12 metres in height and was also noted to be in good condition.

Scattered Coniferous Trees

A young Leyland cypress *X Cupressocyparis leylandii* tree was located within the overgrown flower bed in the northern part of the survey area. This tree measured up to 4 metres in height and was noted to be in good condition.

Scattered Scrub

This habitat was predominantly located along the eastern boundary and included holly and a group of young cherry *Prunus* sp., trees measuring up to 8 metres in height (Target Note 3). Overhanging vegetation from the adjacent woodland was present and included holly and yew *Taxus baccata*.

Standing Water

A small pond measuring approximately 1 metre by 2 metres was located within the north-western corner of the lawned area. This pond was lined and bordered by paving stones. A statue was located within the centre of the pond. The pond contained a limited amount of water which was choked with duckweed *Lemna* sp. A small rockery was located along the edge of the pond (Target Note 4). Vegetation surrounding the pond included forget-me not, hebe *hebe* sp., and ivy.

Wall

Brick walling delineated areas of introduced shrub within the northern extent and formed the northern boundary. These walls measured approximately 3.5 metres in height and were generally in good condition with small areas of ivy growing over the wall (Target Note 2). Shorter sections of brick wall were located along the western boundary and measured up to 2 metres in height. These sections were also generally in good condition.

4.4 FAUNA

During the survey field signs of faunal species were noted and mapped. The time of year at which the survey is undertaken will affect species or field signs directly recorded during the survey.

Birds

A female mallard *Anas platyrhynchos* was present on site during the field survey.

4.5 INVASIVE PLANT SPECIES

Cherry laurel, listed on the London Invasive Species Initiative (LISI) was located within the survey area. No other invasive plant species were identified during the field survey.

5. DISCUSSIONS AND CONCLUSIONS

5.1 SUMMARY OF PROPOSALS

It is understood that the proposed development involves the demolition of the existing building with the construction of a new residential building. The proposed development will also involve the removal of nine young to semi-mature trees.

5.2 NATURE CONSERVATION SITES

UK Statutory Site

The desk study identified Hampstead Heath Woods, designated as a Site of Special Scientific Interest (SSSI) located 140 metres south of the survey area. Although there are no significant barriers (such as main roads, buildings and other urban infrastructure) between the survey area and the conservation site, the proposed works are small in scale. Therefore it is considered unlikely that the proposed works will have any direct/indirect impacts upon this nature conservation site.

Non-Statutory Sites

The desk study identified three nature conservation sites with non-statutory protection. The nearest site was Hampstead Heath located adjacent to the northern and eastern boundaries of the survey area. Hampstead Heath is designated as a Site of Metropolitan Importance for Nature Conservation (SMINC). Due to the close proximity of the SMINC, it is considered that potential direct/indirect impacts upon the nature conservation site may occur. As such, a recommendation has been made within Section 6.1.

Due to the large distance between the remaining nature conservation sites and the survey area, the presence of intervening habitats (e.g. houses and roads) and the small scale nature of the proposed development, it is considered that direct/indirect impacts upon the remaining sites are not anticipated.

5.3 HABITATS

The ecological importance of the habitats present on site is determined by their presence on the list of UK Habitats of Principal Importance and on the Local BAP. It also takes into account the intrinsic value of the habitat e.g. mature trees which cannot easily be replaced. Those habitats which meet any of these criteria and are considered likely to be impacted by the proposals are highlighted as notable considerations. This is summarised in Table 5.1 and further discussed in the text below. Table 5.1 assesses the value of the habitat in its own right and specifically excludes the value associated with its potential to support protected or notable species. A discussion of the habitat value in relation to protected or notable species can be found in Section 5.4.

| Habitat type | UK Habitats of Principal Importance? | Local BAP? | Will habitat be impacted? | Is habitat a notable consideration? |
|-----------------------------|--------------------------------------|------------|---------------------------|-------------------------------------|
| Amenity Grassland | No | No | Yes | No |
| Building/Structures | No | No | Yes | No |
| Fence | No | No | Yes | No |
| Hardstanding | No | No | Yes | No |
| Introduced Shrub | No | No | Potentially | No |
| Other habitat | No | No | Potentially | No |
| Scattered Broadleaved Trees | No | No | Yes | Yes* |
| Scattered Coniferous Trees | No | No | Yes | No |
| Scattered Scrub | No | No | Potentially | No |
| Standing Water | Yes | Yes | Yes | No |
| Wall | No | No | Potentially | No |
| *: Only mature native trees | | | | |

Table 5.1: Summary of Ecological Importance of Habitats on Site

The semi-mature and mature scattered broadleaved trees located on site are a notable consideration due to the maturity of the specimens, as they cannot be easily replaced and are of intrinsic value to a variety of wildlife/species. Plans provided by the client indicate that these trees are to be retained. Up to nine young to semi-mature trees are scheduled for removal. However, due to the young age of these trees it is considered that they could be easily replaced and are therefore not a notable consideration. However, a recommendation regarding the protection of those trees that are to be retained as part of the development has been made within Section 6.2.

Although ponds are a UK Habitat of Principal Importance and are listed on the Local BAP, the pond situated on site is small, provides limited opportunities for wildlife and can be easily replaced. As such, the pond is not a notable consideration.

The remaining habitats listed in Table 5.1 are not considered to be notable considerations as they are not listed as a UK Habitat of Principal Importance/Local BAP, are not valuable habitats within their own right and

can be easily replaced post development. However the removal of these habitats may be compensated for by appropriate mitigation planting and habitat enhancement schemes as indicated in Section 6.2.

5.4 PROTECTED/NOTABLE SPECIES

Table 5.2 and the discussion below consider any species identified within the desk study or where potentially suitable habitat is present.

| Species / Species group | Key habitats for these species on site | Is species likely to be present?* | Will species be impacted, if present? | Is species a notable consideration? |
|-------------------------|---|-----------------------------------|---------------------------------------|-------------------------------------|
| Mammals: Bats | Roosting: Building/structures, scattered trees Foraging/commuting: Introduced shrub, scattered trees | Yes | N/A | Yes |
| Mammals: Badger | Amenity grassland, scattered scrub | No | N/A | No |
| Mammals: Other | Amenity grassland, scattered scrub | No | N/A | No |
| Amphibians | Amenity grassland, standing water | No | N/A | No |
| Reptiles | Scattered scrub, grassland | No | N/A | No |
| Invertebrates | Scattered trees, introduced shrub, other habitat | No | N/A | No |
| Birds | Nesting: Scattered trees Foraging: Scattered scrub, introduced shrub | Yes | Yes | Yes |
| Plants | None present | Yes | Yes | No |

* Likely presence dependent on availability of suitable habitat on site in conjunction with local records data.

Table 5.2: Summary of Ecological Importance of Species on Site

Mammals

Bats

The desk study provided a large number of records for nine bat species including common pipistrelle, soprano pipistrelle, serotine bat, lesser noctule, noctule, Daubenton's bat, brown long-eared bat, natterer bat and nathusius pipistrelle. The nearest record was of a common pipistrelle located 150 metres south of the survey area. The buildings and trees located on site included a small number of features generally deemed suitable for use by bats such as weep holes and rot holes. In addition, the adjacent woodland provides optimal foraging and commuting habitat for bats. As a result, bats are a notable consideration with regards to the proposed development and a recommendation has been made within Section 6.3. For further details on the features identified on site, please refer to the Initial Bat Survey report number RT-MME-113683-02.

Badger

The desk study did not provide any records for badger within a 1 km radius of the survey area. There was no evidence of badger (e.g. setts, latrines or footprints) recorded within the survey area or within adjacent habitats during the field survey. As such, badgers are not a notable consideration however may use the site for foraging/commuting and therefore a precautionary recommendation has been made within Section 6.3.

Other

The desk study provided records for hedgehog located 80 metres north-east of the survey area. The amenity grassland and scattered scrub provide potential foraging habitat for hedgehogs and other terrestrial mammals. As such precautionary recommendations have been made within Section 6.2 and 6.3.

Amphibians

The desk study identified records for three amphibians including common frog, common toad and smooth newt. The nearest record was of a common frog located 390 metres north-east of the survey area. The common toad record was located 480 metres east and the smooth newt record was located 625 metres west of the survey area. No records of great crested newt were provided by the desk study. The pond situated on site is considered sub-optimal for amphibians including great crested newts due to its small size, lack of aquatic vegetation and the presence of waterfowl. Reference to Ordnance Survey and aerial imagery indicates that there are a number of lakes in the local area. However, the closest of these is located 425 m east of the survey area. Whilst the habitats present within the survey area offer suitable habitats for amphibians during the terrestrial phase of their life cycle, these habitats are limited in extent. Due to the absence of suitable breeding habitat in the immediate area and the small size of the site it is considered unlikely that amphibians including great crested newts are present within the survey area and are therefore not a notable consideration with regard to the proposed development.

Reptiles

The desk study identified one historic record for adder. No records for any other reptile species were provided by the desk study. The survey area borders woodland edge habitat which can provide suitable habitat for adders. However, the habitats within the proposed development area are considered sub-optimal for adders and are limited in extent. Gardens can provide suitable habitat for other reptile species including slow worm. However, the habitats present within the survey area are limited in extent and appear to receive some management. As a result it is considered that reptiles are not a notable consideration with regards to the proposed development.

Invertebrates

The desk study identified records for a number of invertebrate species including stag beetle. The scattered trees, introduced shrub and area dominated by daffodils and bluebells provide suitable habitat for a range of invertebrates however these habitats are limited in extent. There are no suitable habitats for stag beetle (e.g. deadwood) present within the survey area. As suitable habitats exist in the surrounding area, invertebrates are not a notable consideration with regards to the proposed development however a recommendation regarding habitat enhancement and suitable planting schemes that may benefit stag beetles has been made within Section 6.2.

Birds

The desk study identified numerous records for notable/protected bird species including those listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) such as black redstart. The majority of

the desk study records were of wetland bird species, which are not likely to be present within survey area as there is no suitable habitat. In addition the habitats within the survey area are sub-optimal for black redstarts which require buildings with ledges for nest building and areas of sparse wasteland vegetation for feeding. However the scattered and scrub trees located on site provide suitable nesting habitat for a range of common bird species. If any vegetation clearance works are undertaken during the nesting bird season there is potential for nesting birds to be impacted. Due to the presence of optimal nesting habitat in the local area no long term impacts on nesting birds are anticipated. Recommendations regarding nesting birds have however been made in Section 6.3.

Plants

The desk study did not identify any notable/protected plant species within a 1 km radius of the survey area and no notable plant species were identified during the survey. As such, plants are not a notable consideration with regards to the proposed development.

A summary of legislation relevant to the ecology of the site is included in Appendix 3.

5.5 INVASIVE PLANT SPECIES

The desk study identified a large number of invasive plant species including Japanese knotweed, yellow archangel and cotoneaster species. Cherry laurel was also identified within the desk study and is listed on the London Invasive Species Initiative (LISI); as such a recommendation has been made within Section 6.4.

6. RECOMMENDATIONS

6.1 NATURE CONSERVATION SITES

The proposed works could potentially directly or indirectly impact upon Hampstead Heath SMINC due to the close proximity. As a result, it is recommended that the Local Planning Authority ecologist should be consulted prior to any works commencing to discuss the likelihood of any impacts upon the nature conservation site.

6.2 HABITATS

The following recommendations are made regarding the habitats present on site:

- **Habitat Loss & Enhancement:** In accordance with the provision of Chapter 11 of the National Planning Policy Framework (Conserving and Enhancing the Natural Environment) and Local Planning Policy, a biodiversity enhancement plan should be incorporated into the landscaping scheme of any proposed works to maximise the ecological value of the site. This will involve, for example:
 - Inclusion of hedgehog passes under any proposed boundary fencing to allow connectivity between grassland habitats, particularly along the north-eastern and southern boundaries.
 - Planting nectar-rich shrubs and plants to provide foraging habitat for invertebrates such as white letter hairstreak, small heath and white admiral. Suitable species include honeysuckle *Lonicera periclymenum*, bramble *Rubus fruticosus* and ragwort *Senecio jacobaea*.
 - Installing bird and bat boxes at suitable elevations.
 - Planting species which attract night flying insects and will be of value to foraging bats. Suitable species include evening primrose *Oenothera biennis*, goldenrod *Solidago virgaurea*, honeysuckle and fleabane *Pulicaria dysenterica*.
 - Creating deadwood/log piles to provide suitable habitat for invertebrates such as stag beetle. Wood could be used from broadleaved trees particularly oak, beech and fruiting trees with bark still attached. Partially bury these vertically in the soil in the shade and allow plants to grow over these to retain moisture.
- **Trees:** Any trees that are to be retained as part of the development should be retained and protected in accordance with British Standard 5837: 2012 "Trees in relation to design, demolition and construction - recommendations". Protection should be installed on site prior to the commencement of any works.

6.3 PROTECTED / NOTABLE SPECIES

The following recommendations are made regarding protected species that are potentially present on site:

- **Nesting Birds:** To ensure compliance with the Wildlife and Countryside Act 1981 (as amended), vegetation clearance/removal of trees should be undertaken outside the nesting bird season. The nesting bird season is weather dependent but generally extends between March and September inclusive. If this is not possible then any vegetation that is to be removed or disturbed should be checked by an experienced ecologist for nesting birds immediately prior to works commencing. If birds are found to be nesting any works which may affect them would have to be delayed until the young have fledged and the nest has been abandoned naturally.
- **Bats:** Recommendations within Middlemarch Environmental Ltd Initial Bat Survey Report RT-MME-113683-02 should be followed.
- **Mammals including Badger and Hedgehog:** Any excavations that need to be left overnight should be covered or fitted with mammal ramps to ensure that any animals that enter can safely escape.

6.4 INVASIVE PLANT SPECIES

Cherry laurel is listed on the London Invasive Species Initiative (LISI), as such any works completed as part of the development should not cause this plant to spread.

REFERENCES AND BIBLIOGRAPHY

British Standards Institution. (2012). *British Standard 5837:2012, Trees in relation to design, demolition and construction – recommendations*. British Standards Institution, London.

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IEA. (1995). *Guidelines for Baseline Ecological Assessment, Institute of Environmental Assessment*. E&FN Spon, An Imprint of Chapman and Hall. London.

JNCC, (1993). *Handbook for Phase 1 Habitat Survey: A technique for environmental audit (reprint)*. Joint Nature Conservation Committee, Peterborough.

Middlemarch Environmental Ltd (2013). Initial Bat Survey: The Cottage, Spaniards Road, London. Report Number RT-MME-1123683-02.

APPENDICES

APPENDIX 1: Desk Study Data

APPENDIX 2: Middlemarch Environmental Ltd Drawing C113683-01-01
Extended Phase 1 Habitat Survey

APPENDIX 3: Overview of Relevant Legislation

APPENDIX 1

Desk Study Data

The data contained in this appendix is confidential and cannot be reproduced.

Site Check Report

Report generated on May 7 2013.

You clicked on the point:

Grid Ref: **TQ266872**

Full Grid Ref: **526600 , 187200**

The following features have been found within 1,000 metres of your search point:

Counties, Metropolitan Districts and Unitary Authorities (GB)

| Name | Geographic Level |
|----------------|--------------------------|
| GREATER LONDON | GREATER LONDON AUTHORITY |

NUTS1 - Government Office Regions (GB)

| Name | Reference | Hotlink |
|--------|-----------|---|
| LONDON | UKI | http://www.ons.gov.uk/ons/guide-method/geography/beginner-s-guide/european/london/index.html |

Ancient Woodland (England)

| Wood Name | Theme ID | Theme Name |
|--------------|----------|---------------------------------|
| | 243119 | ANCIENT & SEMI-NATURAL WOODLAND |
| BISHOPS WOOD | 243134 | ANCIENT & SEMI-NATURAL WOODLAND |
| KEN WOOD | 243193 | ANCIENT & SEMI-NATURAL WOODLAND |

Local Nature Reserves (England)

There are no features within your search area.

National Nature Reserves (England)

There are no features within your search area.

Ramsar Sites (England)

There are no features within your search area.

Special Protection Areas (England)

There are no features within your search area.

Special Areas of Conservation (England)

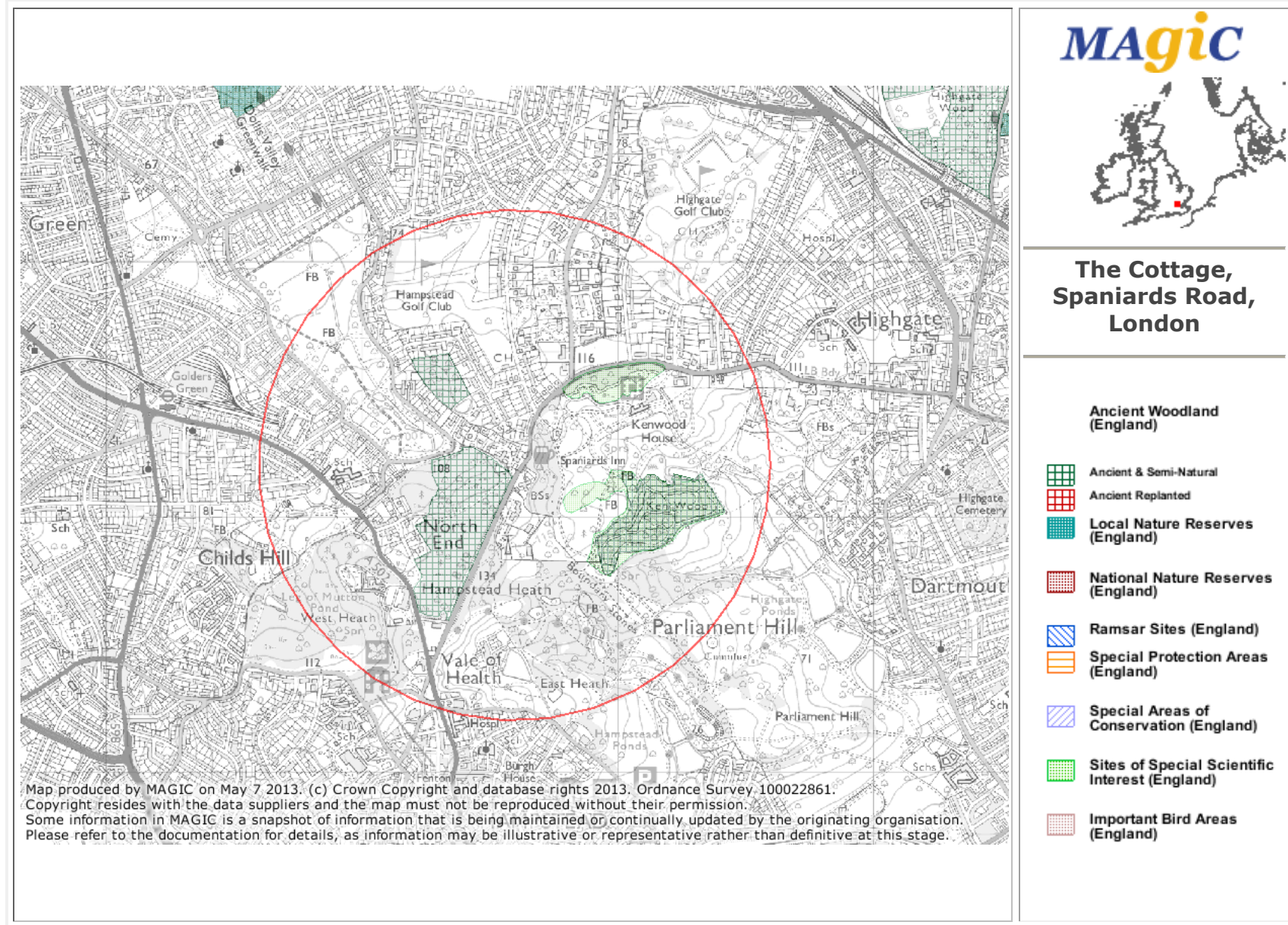
There are no features within your search area.

Sites of Special Scientific Interest (England)

| Reference | Name | Citation | Natural England Contact | Natural England Phone Number |
|-----------|-----------------------|-------------------------|-------------------------|------------------------------|
| 1000124 | HAMPSTEAD HEATH WOODS | 1003451 | EMILY DRESNER | 0845 600 3078 |

Important Bird Areas (England)

There are no features within your search area.



APPENDIX 2

Middlemarch Environmental Ltd Drawing C113683-01-01
Extended Phase 1 Habitat Survey



Legend

- - - Site boundary
- Scattered broad-leaved tree
- Scattered coniferous tree
- × Scattered scrub
- Fence
- Wall
- A Amenity grassland
- Building
- Hardstanding
- Introduced shrub
- Other habitat: Area dominated by daffodils & bluebells
- Standing water

- ⊙ Target note
- 1- Entrance to arched underground room extending under road
- 2- Ivy growing on wall (*Hedera helix*)
- 3- Group of young cherry trees along (*Prunus sp.*) boundary
- 4- Small rockery
- 5- Overgrown flower bed to edge of lawn area
- 6- Lime trees (*Tilia sp.*) with rot holes
- 7- Area of cherry laurel (*Prunus laurocerasus*)

| | | | |
|---|---------------|---------------------------------|----------|
| Project | | The Cottage, Spaniards Road | |
| Drawing | | Extended Phase 1 Habitat Survey | |
| Client | | SidellGibson Architects | |
| Drawing Number | C113683-01-01 | Revision | 00 |
| Scale @ A4 | 1:350 | Date | May 2013 |
| Approved By | SM | Drawn By | AH |
|  | | | |
| Triumph House, Birmingham Road, Allesley, Coventry CV5 9AZ T:01676 525880 F:01676 521400 E:admin@middlemarch-environmental.com | | | |
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C113683-01-01

APPENDIX 3

Overview of Relevant Legislation

GENERAL LEGISLATION AND POLICY OVERVIEW

This section provides an overview of the framework of legislation and policy which underpins nature conservation and is a material consideration in the planning process in England.

CONSERVATION OF HABITATS AND SPECIES REGULATIONS 2010, AS AMENDED (HABITATS REGULATIONS 2010, AS AMENDED)

The Habitats Regulations 2010 consolidate and update the Conservation (Natural Habitats, &c.) Regulations 1994 and all its various amendments. The Habitats Regulations 2010 are the principal means by which the EEC Council Directive 92/43 (The Habitats Directive) as amended is transposed into English and Welsh law.

The Habitats Regulations 2010 place duty upon the relevant authority of government to identify sites which are of importance to the habitats and species listed in Annexes I and II of the Habitats Directive. Those sites which meet the criteria are, in conjunction with the European Commission, designated as Sites of Community Importance, which are subsequently identified as Special Areas of Conservation (SAC) by the European Union member states. The regulations also place a duty upon the government to maintain a register of European protected sites designated as a result of EC Directive 79/409/EEC on the Conservation of Wild Birds (The Birds Directive). These sites are termed Special Protection Areas (SPA) and, in conjunction with SACs, form a network of sites known as Natura 2000. The Habitats Directive introduces for the first time for protected areas, the precautionary principle; that is that projects can only be permitted having ascertained no adverse effect on the integrity of the site. Projects may still be permitted if there are no alternatives, and there are imperative reasons of overriding public interest.

The Habitats Regulations 2010 also provide for the protection of individual species of fauna and flora of European conservation concern listed in Schedules 2 and 5 respectively. Schedule 2 includes species such as otter and great crested newt for which the UK population represents a significant proportion of the total European population. It is an offence to deliberately kill, injure, disturb or trade these species. Schedule 5 plant species are protected from unlawful destruction, uprooting or trade under the regulations.

The Habitats Regulations 2010 were amended in August 2012 to ensure clearer transposition of the provisions of Articles 2, 3, 4(4) (second sentence) and Article 10 of the Wild Birds Directive, by giving additional and specific duties to relevant bodies. A number of amendments were also made to transpose more clearly certain elements of the Habitats Directive.

THE WILDLIFE AND COUNTRYSIDE ACT (WCA) 1981 (AS AMENDED)

The WCA, as amended, consolidates and amends pre-existing national wildlife legislation in order to implement the Bern Convention and the Birds Directive. It complements the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended), offering protection to a wider range of species. The Act also provides for the designation and protection of national conservation sites of value for their floral, faunal or geological features, termed Sites of Special Scientific Interest (SSSIs).

Schedules of the act provide lists of protected species, both flora and fauna, and detail the possible offences that apply to these species. All relevant species specific legislation is detailed later in this Appendix.

THE COUNTRYSIDE AND RIGHTS OF WAY (CROW) ACT 2000

The CROW Act, introduced in England and Wales in 2000, amends and strengthens existing wildlife legislation detailed in the WCA. It places a duty on government departments and the National Assembly for Wales to have regard for biodiversity, and provides increased powers for the protection and maintenance of SSSIs.

The Act also contains lists of habitats and species (Section 74) for which conservation measures should be promoted, in accordance with the recommendations of the Convention on Biological Diversity (Rio Earth Summit) 1992.

THE NATURAL ENVIRONMENT AND RURAL COMMUNITIES (NERC) ACT 2006

Section 40 of the NERC Act places a duty upon all local authorities and public bodies in England and Wales to promote and enhance biodiversity in all of their functions. Sections 41 (England) and 42 (Wales) list habitats and species of principal importance to the conservation of biodiversity. These lists supersede Section 74 of the CRoW Act 2000. These species and habitats are a material consideration in the planning process.

THE HEDGEROW REGULATIONS 1997

The Hedgerow Regulations make provision for the identification of important hedgerows which may not be removed without permission from the Local Planning Authority.

UK BIODIVERSITY ACTION PLAN

The United Kingdom Biodiversity Action Plan (UKBAP), first published in 1994 and updated in 2007, is a government initiative designed to implement the requirements of the Convention of Biological Diversity to conserve and enhance species and habitats. The UKBAP contains a list of priority habitats and species of conservation concern in the UK, and outlines biodiversity initiatives designed to enhance their conservation status. Lists and Broad and Local habitats are also included. The priority habitats and species correlate with those listed on Section 41 and 42 of the NERC Act.

The UKBAP requires that conservation of biodiversity is addressed at a County level through the production of Local BAPs. These are complementary to the UKBAP, however are targeted towards species of conservation concern characteristic of each area. In addition, a number of local authorities and large organisations have produced their own BAPs.

UKBAP and Local BAP targets with regard to species and habitats are a material consideration in the planning process.

Planning Policy

National Planning Policy Framework

In early 2012, the National Planning Policy Framework (NPPF) replaced much previous planning policy guidance, including Planning Policy Statement 9: Biological and Geological Conservation. The government circular 06/05: Biodiversity and Geological Conservation - Statutory Obligations and Their Impact within the Planning System, which accompanied PPS9, still remains valid. A presumption towards sustainable development is at the heart of the NPPF. This presumption does not apply however where developments require appropriate assessment under the Birds or Habitats Directives.

Chapter 11, on conserving and enhancing the natural environment, sets out how the planning system should contribute to and enhance the natural and local environment by minimising impacts on biodiversity and, where possible, provide net gains in biodiversity. Opportunities to incorporate biodiversity gains into a development should be encouraged.

If a proposed development would result in significant harm to the natural environment which cannot be avoided (through the use of an alternative site with less harmful impacts), mitigated or compensated for (as a last resort) then planning permission should be refused.

SPECIES SPECIFIC LEGISLATION

This section contains a summary of legislation with relation to the species present or potentially present in the survey area. The reader should refer to the original legislation for definitive interpretation.

NESTING AND NEST BUILDING BIRDS

Nesting and nest building birds are protected under the Wildlife and Countryside Act WCA 1981 (as amended). Some species (listed in Schedule 1 of the WCA) are protected by special penalties.

Subject to the provisions of the act, if any person intentionally:

- kills, injures or takes any wild bird;
- takes, damages or destroys the nest of any wild bird while that nest is in use or being built; or
- takes or destroys an egg of any wild bird,

he shall be guilty of an offence.

'Reckless' offences with regard to the disturbance of nesting wild birds included in Schedule 1 of the Wildlife and Countryside Act were added by the Countryside and Rights of Way Act 2000.

The Natural Environment and Rural Communities (NERC) Act 2006 places a duty on Government Departments to have regard for the conservation of biodiversity and maintains lists of species and habitats which are of principal importance for the purposes of conserving biodiversity in England and Wales. These lists include a number of bird species.

MIDDLEMARCH ENVIRONMENTAL LTD

QUALITY ASSURANCE

THE COTTAGE, SPANIARDS ROAD,
LONDON

EXTENDED PHASE 1 HABITAT SURVEY

A Report to SidellGibson Architects.

Contract Number: C113683

Report Number: RT-MME-113683-01

Revision Number: 00

Description: Final

Date: May 2013

Checked by:

Charlotte Lea
Ecological Projects Officer

Approved by:

Dr Philip Fermor
Managing Director

