

PRELIMINARY ECOLOGICAL APPRAISAL FOR PROPOSED NEW DWELLINGS AT SILVERHILL HOLIDAY PARK, LUTTON GOWTS, LONG SUTTON, SPALDING, PE12 9LQ



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1 Eco-Check Consultancy Ltd, Ecological and Protected Species Survey for Proposed New Dwellings at Silverhill Holiday Park, Lutton Gowts, Long Sutton, Spalding, PE12 9LQ

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EXECUTIVE SUMMARY

- An ecological survey was undertaken by principal wildlife consultant James Hodson BSc of Eco-Check Consultancy Ltd on 8th February 2016. This incorporated an ecological walkover and preliminary protected species survey with an inspection of any trees or hedges for evidence of bat roosts and nesting birds and possible use of the site by other priority species. The baseline ecology information was used to make an assessment of any likely significant effects on flora and fauna arising from the proposed construction of five detached dwellings across an area of short species poor amenity grassland.
- The site was assessed for the presence of valuable habitats and likely use of the site by protected and priority species and to identify where necessary where further more detailed survey works may be required. The report also provides appropriate measures for avoidance, reduction or compensation for proposed works, together with biodiversity enhancement measures and recommendations for further ecological investigations where necessary.
- A planning application is to be submitted to South Holland District Council for five new residential dwellings to the front of the existing holiday park buildings at Silverhill Holiday Park, Lutton Gowts, Long Sutton, TF436245. The habitats within and bordering the site consists of amenity grassland, bare ground, buildings, scattered trees and species poor hedges.
- Survey methodology followed the Phase 1 Survey Handbook (JNCC 2010) with additional emphasis on searching for protected species, their field signs or identifying habitat which may support protected species. A desk study was also undertaken to ascertain any historical records of protected or UK/Lincolnshire priority species and habitats. The survey report also includes consideration regarding designated wildlife sites within a 2km radius.
- 3 bat species have been recorded in and around Long Sutton including common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), brown long-eared bat (*Plecotus auritus*) and *Myotis spp* (TF438236, 2010-2015).
- There are water vole (*Arvicola amphibious*) records from the IDB, nearest record from Long Sutton (TF4126, 2011). There are 3 records of hedgehog (*Erinaceus europaeus*) from Long Sutton (2005, 2006). There were no records of great crested newt, reptiles, badger, hazel dormouse, otter or white-clawed crayfish within the search radius.
- Within the 2km search radius there are UK/LBAP and Red/Amber List Bird Species as well as SoCC (Species of Conservation Concern). Bird records included skylark, starling, linnet, reed bunting, dunnock, house-martin, teal, redshank, meadow pipit, swallow and black-headed gull. None of these species records pertain to the site itself, but are a strong indication that these species are likely to be present locally and underlines the importance of

retaining mature trees and the hedgerows along the site margins as well as timing clearance works to avoid the bird nesting season.

- The proposed construction area is across an area of well managed amenity grassland with a diversity of ornamental trees, plants and shrubs, none of which are of any great age or significance. There are ornamental managed hedgerows along the north and south boundaries and timber fencing forming the east and west boundaries. There are two brick bungalows within the site which are to remain and a tarmac driveway runs centrally through the plot serving the existing buildings and holiday park. There is hedging and trees along the north, east and south boundary and fencing along the west boundary. There are no ponds within the site or within 500m, Lutton Drain at its closest point flows approximately 130m south-west of the nearest boundary.
- The report concludes that whilst it is likely that some protected or priority species (e.g. bats, birds) may be utilising the boundary hedges and trees, the overall impact on any protected species will be low. The entire construction area is centred on an area of species poor and managed amenity grassland of limited ecological interest. The proposed works will have no direct impact on any designated sites. The plant communities across the proposed development area are ecologically unremarkable.
- The boundary hedgerows (HR1-HR2) and mature scattered trees are of greater ecological value. The site plans indicate that the hedges and mature scattered trees can be retained, enhanced and suitably protected. There should be no direct lighting of the hedgerows as bats may be using these as foraging and commuting routes.
- Instructions on best practice when working on sites where bats and birds could be present are enclosed within the mitigation section of this report. No signs of protected species using the site were observed. No further surveys or EPSM mitigation measures are required other than those outlined below. A summary of the recommendations includes:
 - o *Birds* – it is recommended that any vegetation or tree clearance works should be undertaken outside of the bird nesting season which extends from 1st March to the 31st August inclusive. In the event that works are undertaken during this period a nesting bird survey is to be undertaken. Nest boxes to be installed on mature boundary trees as a biodiversity enhancement measure.
 - o *Bats* – Bat boxes to be installed on mature boundary trees and roost features incorporated into the designs of the new dwellings as a biodiversity enhancement measure. Sensitive lighting scheme to minimize disturbance to foraging and commuting bats.

INTRODUCTION

Eco-Check was commissioned in February 2016 to undertake an ecological survey of an area of land within the curtilage of Silverhills Holiday Park. The site is bordered by residential buildings to the north and south, Lutton Gowts Road to the east and the holiday park to the west. It is located at Ordnance Survey grid reference: TF436245. It is proposed that two 2-storey detached houses be built to the south of the access and a further three will be built on the area north of the access.

An ecological walkover survey was conducted on the 8th February 2016 to assess the ecological value of the site and the likely presence/absence of any protected species and provide recommendations for further investigations where necessary.

SURVEY AIMS AND SCOPE

The ecological investigations undertaken include:

1. A desk study to gather existing information on statutory and non-statutory sites of conservation interest, and any protected or notable species.
2. A survey to describe the vegetation and habitats of ecological importance utilizing the Handbook for Phase 1 Habitat Survey, (JNCC, 2010) and the National Vegetation Classification methodology as set out in the NVC Handbook (source: *"Handbook for using the National Vegetation Classification"* J.S.Rodwell, 2006 Joint Nature Conservation Committee).
3. A reconnaissance survey for evidence of protected species and identification of habitats suitable for such species. In particular the survey adopted the national survey methodologies for badgers, reptiles, amphibians, water voles and bats.
4. Analysis of the data gathered from desk and field surveys and identification of any likely significant effects on protected species, including proposals for avoidance, reduction, compensation and enhancement measures.
5. Assessing the magnitude and nature of any impact the existing and proposed land use would make on the site, evaluate any residual effects of the land use and recommendations for further investigations where necessary.

The assessment aims to:

- Describe the baseline condition of the ecological features within the site;
- Assess the potential construction and operational impacts resulting from biophysical changes incurred by the land use;
- Identify the mitigations necessary to reduce the potential impact of the land use on designated sites, habitats, protected and notable species (i.e. ecological features) which occur within the site), and;

- Summarise the residual impacts of the land use on the ecology and nature conservation in the zone of influence.

The impact assessment presented in this report was undertaken in compliance with the Chartered Institute of Ecology and Environmental Management *Preliminary Ecological Appraisal* (CIEEM, 2013).

Comments on the ecological value of the site as a wildlife resource and the significance of the change of land use follow the guidelines provided by Regini (2000).

LEGAL FRAMEWORK

The principal European and UK legislation relating to biodiversity and nature conservation relevant to the proposed development are:

- Conservation (Natural Habitats &c.) Regulations 1994.
- The EC Directive on the Conservation of Wild Birds (791409/EEC).
- The Wildlife & Countryside Act (1981) and subsequent amendments.
- The CROW Act 2000, particularly Section 74 habitats and species.
- The Protection of Badgers Act (1992).

PLANNING POLICY

The UK government is committed to a significant reduction of the current rate of biodiversity loss by 2010. This commitment is recognised in:

- The England Biodiversity Strategy
- Lincolnshire Biodiversity Action Plan (LBAP)
- Biodiversity 2020: A Strategy for England's Wildlife
- National Planning Policy Framework (Replacement of PPS9);
- BS 42020:2013- Code of Practice for Planning and Development

SITE LOCATION AND DESCRIPTION

The application site is situated just south of Lutton Gowts and north of the market town and civil parish of Long Sutton in the South Holland District of Lincolnshire. The site is located approximately 7km east of Holbeach and 18km west of King's Lynn. The nearest main road is the A17 approximately 2.5km to the south (**See Fig.1**).

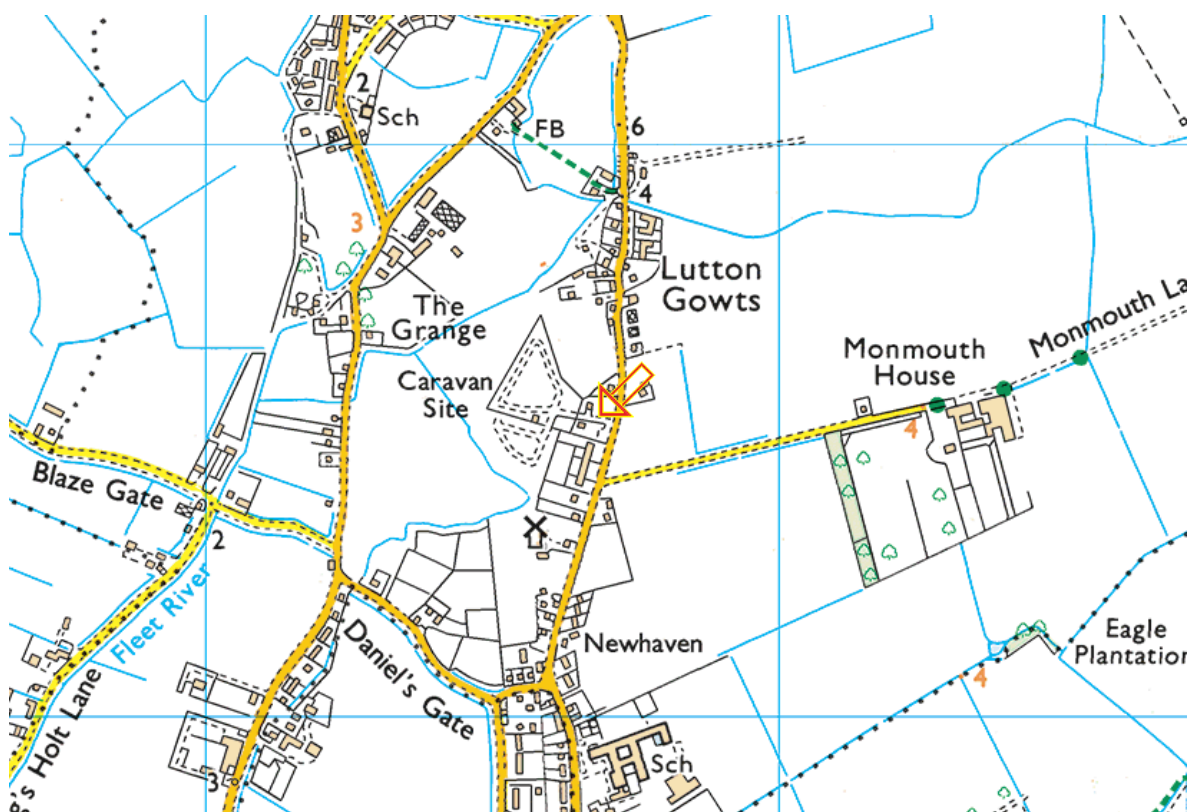


Fig.1 Site Location Map, Streetmap 2015

The application site covers approximately 0.5ha and the proposed construction zone is entirely across an area of mown amenity grassland with scattered trees, shrubs and ornamental plants and as such there will be limited loss of vegetation and natural habitats. It is thought that the more valuable boundary trees to the east and hedging to the north and south will be retained and suitably protected during the development.

There are species poor ornamental hedgerows along the north and south boundaries and timber fencing forming the east and west boundaries. The site is set within a landscape of predominantly large open arable fields and grassland with scattered trees, field hedgerows and drains. There are some tree belts and copses within 500m. There are no ponds within the site or within 500m.

The key habitats, structure, quality and management were assessed so as to give an assessment of the likely presence of protected species. Detailed plans showing the existing and proposed site layout plans are provided in **Appendix 1**.

Protected and BAP Species Records

3 bat species have been recorded in and around Long Sutton including common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), brown long-eared bat (*Plecotus auritus*) and *Myotis spp* (TF438236, 2010-2015).

There are water vole (*Arvicola amphibious*) records from the IDB, nearest record from Long Sutton (TF4126, 2011). There are 3 records of hedgehog (*Erinaceus europaeus*) from Long Sutton (2005, 2006). There were no records of great crested newt, reptiles, badger, hazel dormouse, otter or white-clawed crayfish within the search radius.

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None of these species records pertain to the site itself, but are a strong indication that these species are likely to be present locally and underlines the importance of retaining mature trees and the hedgerows along the site margins as well as timing clearance works to avoid the bird nesting season.

FIELD SURVEY METHODOLOGY

Habitats-

The outlined site was inspected by an experienced ecologist to identify and characterise the principal wildlife habitats, this included an assessment of the presence or possibility of any protected, rare or declining species.

The site was walked over and the dominant vegetation and features were noted. Recent aerial photographs (**See Fig.3**) were also consulted. Dominant species notes were taken (**Appendix 3**) and the site was documented by a series of photographs (**Appendix 2**).

The aim of the walkover was to assess whether there are likely to be any ecological impacts of the proposed development on the nature conservation interests of the land and adjoining areas. Habitats on the site were assessed to assist in determining areas with the potential to support such species and areas where further survey work may be required.

The dominant vegetation and structure were assessed in accordance with the national standard for the survey of plants using the 'JNCC National Vegetation Classification System, 2010'



Fig.3 Aerial View of Site and Surrounding Landscape– Bing Maps 2014

Fauna-

A survey for evidence of protected species and an assessment of the suitability of the habitats present to support such species was undertaken within the application area and along the site margins. The potential of the site to provide habitat for protected and noteworthy species was assessed from field observations. The purpose of this assessment was to establish the likelihood of such species being present and whether more comprehensive surveys for protected species are required.

Protected species are those afforded protection under the various wildlife legislation detailed below. For the purpose of this report noteworthy species are defined as those listed as Priority Species in the UK Biodiversity Action Plan (BAP) and as Species of Principal Importance under Section 41 of The Natural Environment and Rural Communities (NERC) Act.

Incidental records of birds and other fauna noted during the course of the habitat survey were also compiled. Scientific names are given after the first mention of a species, thereafter, common names only are used.

When assessing the likely presence/absence of species during the walkover survey, habitat was assessed in accordance with the risk assessment categories detailed in **Table 1** below.

Risk Category	Definition
PRESENT	Presence confirmed in the course of current survey or recent, confirmed records.
HIGH	On-site habitat of high quality for a given species/species group. Site within/peripheral to a national or regional population stronghold. Good quality surrounding habitat and good connectivity.
MODERATE	On-site habitat of moderate quality, providing most or all of the known key requirements of a given species/species group. Local returns from the data search, within national distribution, suitable surrounding habitat. Factors limiting the likelihood of occurrence may include small habitat area, habitat severance, disturbance etc.
LOW	On-site habitat of poor to moderate quality for a given species/species group. Few or no returns from data search but presence cannot be discounted on the basis of national distribution, nature of surrounding habitats, habitat fragmentation, recent on-site disturbance etc.
NEGLIGIBLE	While presence cannot be absolutely discounted, the site includes very limited or poor quality habitat for a particular species or species group. No local returns from a data search, outside or peripheral to known national range for a species, surrounding habitat considered unlikely to support wider populations of a species/species group.
UNKNOWN	Insufficient data to make a determination of the risk of a species presence or absence.

Table.1 Criteria for assessing presence of protected species

The protected species survey methodology was as follows:

Badgers

Badgers (*Meles meles*) are afforded protection under 'The Protection of Badgers Act' 1992, under which it is an offence to kill, injure, take, possess or cruelly mistreat a badger or to interfere with, or obstruct access to a sett. Badgers are generally nocturnal and evidence of their presence in an area often comes from field signs rather than sightings of the animals. Useful field signs include:

- Setts (main, outlying, annex or subsidiary)
- Tufts of hair caught on barbed wire fences;
- Conspicuous Badger paths;
- Footprints;
- Latrines – small excavated pits in which droppings are deposited;
- 'Snuffle holes' – small scrapes where Badgers have searched for insects and plant tubers;
- Day nests – bundles of grass and other vegetation where Badgers may sleep above ground;
- Scratch marks on trees (usually near the sett).

Daytime surveys looking for field signs can be carried out at any time of the year, and should be non-intrusive, but nocturnal surveys of setts (if required), are only likely to be effective from April to November, when Badgers are most active, and any cubs present will have emerged.

Main setts

These usually have a large number of holes with large spoil heaps, and the sett generally looks well used. They usually have well used paths to and from the sett and between sett entrances. Although normally the breeding sett is in continual use, it is possible to find a main sett that has become disused because of excessive digging or for some other reason, in which case it is recorded as a disused main sett.

Annex setts

These are always close to a main sett, usually less than 150 m away, and are usually connected to the main sett by one or more obvious, well worn paths. They consist of several holes, but are not necessarily in use all the time, even if the main sett is very active.

Subsidiary setts

These often these have only a few holes, are usually at least 50 m from a main sett, and do not have an obvious path connecting them with another sett. They are not continuously active.

Outlying setts

These usually only have one or two holes, often have little spoil outside the hole, have no obvious path connecting them with another sett, and are only used sporadically. When not in use by badgers, they are often taken over by foxes or even rabbits. However, they can still be recognised as badger setts by the shape of the tunnel (not the entrance hole), which is at least 250 mm in diameter and rounded or flattened oval in shape.

Methodologies used and any setts recorded were classified according to published criteria (Harris, Creswell & Jefferies, 1989). Early spring is a good time to survey for evidence of badgers as the vegetation is relatively short and any setts would be readily visible.

Bats

Bats are afforded legal protection on a European and national basis, predominantly under the Habitat Regulations 1994 and the Wildlife and Countryside Act 1981 with further protection added under the Countryside and Rights of Way Act 2000, which makes it a criminal offence to disturb or obstruct a bat roost.

In order to fully assess bat occupation of a particular site, the Bat Conservation Trust (2007) recommends that information gathered from a desk study of known bat records, and a daytime site walkover, is used to inform the type and extent of future bat survey work, potentially including nocturnal surveys.

The diurnal walkover provides an opportunity to check for signs of occupancy, such as droppings, scratch marks, feeding remains, carcasses, or even animals in residence, whilst nocturnal surveys (if required) allow numbers and species of bats to

be confirmed. The latter are also used to determine the presence or absence of bats, where signs of bat activity are indeterminate or absent but potential for roosting is considered to be medium to high.

Roosting places vary depending on the species. Pipistrelles usually inhabit narrow cracks or cavities around the outside of buildings, but they will roost in similar niches inside larger barns. Typical sites include soffit spaces, gaps behind fascia boards and end rafters, crevices around the ends of projecting purlins, under warped or lifted roof and ridge tiles, or in gaps in stone and brickwork where mortar has dropped out.

Larger species such as Brown Long-eared Bats (*Plecotus auritus*), Myotis bats Natterer's (*Myotis nattereri*) and Whiskered/Brandt's (*M. mystacinus*/*M. brandtii*), and Lesser Horseshoes (*Rhinolophus hipposideros*), like to roost in the roof voids of buildings, and can often be found hanging singly or in small groups from ridge boards or roof timbers, especially where these butt up against gable walls or chimney breasts. They particularly favour older structures with timber frames. Here they squeeze into tight crevices making them difficult to observe.

Diurnal walkovers can be carried out at any time of the year, but nocturnal surveys should only be undertaken when bats are out of hibernation and in their summer roosts. The recommended period is from May to September inclusive, with June to August optimum, and a minimum of 2 or 3 surveys are required. The season can be extended into October, although particularly cold weather will render this inadvisable.

At moderate to high value sites, one of the nocturnal surveys should comprise dusk and dawn (or dusk to dawn) within one 24 hour period. For sites < 5 ha in size, two surveyors should be present, with more surveyors at complex buildings, e.g. those with multiple elevations and/or roof structures.

Trees were inspected for any gaps in the bark, patches of exfoliating bark, fissures, splits, cracks and cavities, including woodpecker holes. Where possible cavities and crevices were inspected with a maglight and endoscope, whilst 12x30 Opticron binoculars and a Nightsearcher torch were used for the inaccessible/unreachable areas.

The survey methods used were based on those outlined in the Joint Nature Conservation Committee's published Bat Worker's Manual (2004), English Nature's Bat Mitigation Guidelines (2004) and the Bat Conservation Trust (2007) Bat Surveys-Good Practice Guidelines.

Birds

There are varying degrees of protection for birds as some are classed as pest species while others are protected by special penalties. All wild birds receive special protection under the Wildlife and Countryside Act 1981 (as amended) which makes it an offence to "take, damage or destroy the nest of any wild bird while it is in use or being built" and to "take or destroy the eggs of any wild bird".

Most resident and migrant birds breed in the spring and summer, although Woodpigeons (*Columba palumbus*) and Collared Doves (*Streptopelia decaocto*) nest throughout the year, and as a result could be on eggs in almost any month.

In season, signs of breeding include singing males, display and copulation, birds gathering nesting materials, adults carrying food, calling chicks, etc. In winter none of these activities may be occurring, so a survey for old nests and/or nest holes is the most reliable method of determining the presence or absence of breeding birds.

All bird species are noted whether flying over, singing or feeding and the likelihood of the habitat to support each species in terms of feeding, nesting and roosting is assessed. A comprehensive bird survey such as a breeding bird survey was not undertaken as this was beyond the remit of the survey assessment.

Dormice

Evidence of the presence of dormice (*Muscardinus avellanarius*) is determined by systematically searching for gnawed hazelnuts underneath hazel (*Corylus avellana*) coppice, as well as searching for nests, which are often found in brambles or other low growing shrubs including hazel.

They are afforded legal protection on a European and national basis via the Habitat Regulations 1994 and the Wildlife and Countryside Act 1981. The area was assessed for suitable habitats that could potentially be used by dormice.

Great Crested Newts & Amphibians

Great-crested newts (*Triturus cristatus*) and their habitat are protected under the Wildlife & Countryside Act 1981 and the Habitat Regulations 1994. This protection was further strengthened under the Countryside and Rights of Way Act 2000.

A survey for Great Crested Newts (GCN) may be indicated when background information on distribution suggests that they may be present. More detailed indicators are:

- Any historical records of Great Crested Newts on the site or in the general area
- A pond on or near the site (within around 500 m), even if it holds water only seasonally
- Sites with refuges (such as piles of logs or rubble), grassland, scrub, woodland or hedgerows within 500m of a pond.

Great crested newts (*Triturus cristatus*) require a body of water in which to breed. This should contain suitable submerged and marginal vegetation to provide opportunities for egg-laying with some less vegetated areas to enable courtship display. Great crested newts also require a terrestrial habitat in which both to forage and to hibernate over winter. The site was examined for suitable waterbodies and terrestrial habitat. Survey methods were based on those outlined in the Joint Nature Conservation Committee's published 'Herpetofauna Workers' Manual, 2003'.

Otters

Otters are nocturnal and are active all year round. They are large with an adult male reaching up to 1.2 m from nose to tail, and weighing about 10 kg.

Feeding mainly on fish and amphibians, Otters live by undisturbed waters where there is plenty of cover, mostly by freshwater lakes, rivers and quiet small streams as well as some coasts. An Otter may use over 40 km of river and needs many resting places throughout this range. A female otter will give birth to 1 to 3 cubs in a natal holt, which is often away from the main river and must be completely undisturbed. Field signs include:

- Prints in soft mud;
- Spraints (faeces);
- Holts.

Reptiles

Slow-worms (*Anguis fragilis*) and common lizards (*Zootoca vivipara*) inhabit a large variety of habitats, such as rough grassland, heathland or woodland edge where there are suitable opportunities for maintaining their body temperature and finding suitable prey. Grass snakes (*Natrix natrix*) are normally associated with waterbodies but they have a wide home range of up to 2km² and can occur anywhere within that range, particularly in grassy sites as the common name implies.

During the winter months, from mid-October to late February or early March, they are in hibernation, usually deep in underground hibernacula, such as holes and cracks in the ground, among rocks or the roots of large trees, down animal burrows, or in piles of rubble or stone. In the spring and summer they live above ground in well-vegetated places, with Grass snakes often near or in water. Being cold-blooded all reptiles like to bask, and can often be found in open places.

There are very few signs of reptile presence, but these include:

- Shedded skin (snakes);
- Eggs (but not Common Lizard which gives birth to live young).

The site was assessed for suitable habitats. Protection is afforded to the slow-worm, common lizard and grass snake under Section 9 (1) and 9 (5) of the Wildlife & Countryside Act 1981.

Water Vole

Water voles (*Arvicola terrestris*) receive legal protection under the Wildlife and Countryside Act 1981. This protects individuals when they are occupying their places of shelter (burrows) but not when they are outside them. It is an offence, therefore, to damage, destroy or obstruct access to burrows and to disturb water voles when they are using them.

The optimal time for surveys is spring, at the start of the water vole breeding season, when they leave conspicuous field signs. The Water Vole is the largest of the British

voles. It lives in a series of holes or burrows at the water's edge and can be found along the banks of ditches, streams, rivers, lakes and canals. Although Water Voles live in colonies, the breeding females are territorial, each defining their contiguous territory with latrines during the breeding season. This lasts from March to October.

The Water Vole is herbivorous, feeding primarily on the lush aerial stems and leaves of waterside plants. Its activity is normally confined to the area within two metres of the watercourse, the bankside vegetation in this area not only essential for food, but also for cover from predators. Water Vole activity can be assessed by looking for the following signs:

- Burrows;
- Faeces and latrines;
- Feeding stations;
- Runs;
- Paw prints in areas of soft mud;
- Feeding 'lawns';
- Predator field signs.

White-clawed Crayfish

White-clawed crayfish (*Austropotamobius pallipes*) have in more recent years undergone a dramatic decline. They are afforded protection under the Wildlife and Countryside Act 1981, which makes it an offence to take or sell this species. Further protection is afforded through the Habitat Regulations 1994

The area under assessment was searched for suitable habitats. This typically includes freshwater streams and rivers but may also include still water bodies. Where relevant habitat occurs, evidence in the form of refugia, such as holes or rocks, is searched for.

Other Notable Species

The survey area was also appraised for its suitability to support other notable fauna including mammals, birds & invertebrates in accordance with the published 'Guidelines for Baseline Ecological Assessment' (Institute of Environmental Assessment, 1995). Evidence of any current or historical presence of such species was recorded.

Constraints

The comprehensiveness of the ecological assessment was limited by the season in which the site visit was made. To confirm the presence or absence of all protected species usually requires multiple visits at suitable times of the year. Summer surveys between May and September are considered optimal. The site visit focussed on assessing the potential of the site to support species given protection under British or European law. In view of the above constraints this assessment cannot be considered to provide a comprehensive survey of the ecological interest of the site. It does however provide a "snapshot" of the ecological interest present on the day of the visit and highlights areas where further survey work may be required.

SURVEY RESULTS

The survey was completed on 8th February 2016. The weather conditions at the time of the survey are shown in **Table.2**

Conditions	8 th February 2016
Temperature (C)	5
Cloud Cover (%)	10/sunny
Precipitation	-
Wind Speed	15mph south-west

Table.2 Conditions at time of survey

Phase One Habitat Survey-

The habitat survey identified five main habitat types within the application site which included amenity grassland, bare ground, buildings, scattered trees and species poor hedges. A full list of species recorded during the site survey is presented in **Appendix 3**. The following broad habitat types were recorded at the site (Listed in alphabetical order not that of ecological importance):

Amenity Grassland

The majority of the site interior and footprint of the proposed dwellings comprises species poor amenity grassland which appeared to be cut on a regular basis. The sward height at the time of inspection was approximately 5-10cm. The dominant grassland species included ryegrass (>50% *Lolium perenne*), creeping buttercup (*Ranunculus repens*), creeping thistle (*Cirsium arvense*), white clover (*Trifolium repens*), cleavers (*Galium aparine*), ribwort plantain (*Plantago lanceolata*), ground ivy (*Glechoma hederacea*), dandelion (*Taraxacum sp.*), nettle (*Urtica dioica*), daisy (*Bellis perennis*), bristly oxtongue (*Helminthotheca echioides*).

Amenity grassland is generally well managed with a low diversity of forbes and has limited ecological interest. Flowering plants also included ragwort (*Senecio jacobaea*), Mallow (*Malva sylvestris*), Foxglove (*Digitalis purpurea*), Daffodil (*Narcissus spp*), Crocus (*Crocus longiflorus*) and common comfrey (*Symphytum officinale*).

Bare Ground

There is a shingle and tarmacadam driveway running through the middle of the site and a further parking/turning circle area in the south-east corner.

Buildings

Situated to the north and south of the central access are two bungalows. They are of modern brick construction with pan-tile roofs and uPVC windows, doors soffits and fascias. They did not appear to contain any features likely to be accessible or used by roosting bats or nesting birds. There is a static caravan reception building to the

immediate south of the entrance and a further static to the west of the north bungalow.

Scattered Trees & Shrubs

The eastern section of the site and along the entrance is a number of young and early mature scattered trees and shrubs. The notable trees have been plotted and assessed within the arboricultural impact assessment (AIA). The tree species includes ash (*Fraxinus excelsior*), sycamore (*Acer pseudoplatanus*), beech (*Fagus sylvatica*), cherry (*Prunus spp.*), cider gum (*Eucalyptus spp.*), willow (*Salix.spp*), cork-screw willow (*Salix matsudana*), elder (*Sambusu nigra*), hazel (*Corylus avellana*), laurel (*Lauris nobilis*), oak (*Quercus robur*), scot's pine (*Pinus sylvestris*), silver birch (*Betula pendula*) and Leyland cypress (*Cupressocyparis leylandii*).

Other low level shrubs included buddleja (*Buddleja davidii*), Ceanothus (*Ceanothus spp*), Contoniaster (*Contoniaster frigidus*), Rhododendron (*Rhododendron ponticum*), Rose (*Rosa spp.*) and Stags horn sumac (*Rhus typhina*).

None of the trees within or bordering the application site are sufficiently old or large enough to have developed bat roosting features such as flaking bark, rot holes or cracks. The trees and shrubs combined with the hedges are of moderate ecological value providing a food source and refuge for nesting birds, foraging bats, small mammals and invertebrates.

Species Poor Hedge

An assessment of the hedgerows was made using the HEGS approach and the hedge sections are numbered HR1 and HR2 on the site map (**Appendix 1**). The details of the hedges are provided below in **Table 3**.

Hedge Number	Linear Length (m)	Woody Species (Hedge)	Valuable or Protected under HEGS	Dominant Hedge and Tree Species
HR1	55	0	No-Intact species poor hedge with no valuable features	The north hedgerow is an ornamental mono-culture of Leyland cypress. Hedge is managed and approximately 3-4m in height.
HR2	60	0	No- Intact species poor hedge with no valuable features	The south hedgerow is an ornamental mono-culture of Leyland cypress. Hedge is managed and approximately 4-5m in height.

Table.3 Hedgerow Evaluation – HEGS

Fauna-

Faunal species observed or evidence of presence at the site or in close proximity to the site is presented in **Table.4.**

Common Name	Scientific Name
Blackbird	<i>Turdus merula</i>
Blue tit	<i>Parus caeruleus</i>
Carriow crow	<i>Corvus corone corone</i>
Dunnock	<i>Prunella modularis</i>
Great tit	<i>Parus major</i>
Jackdaw	<i>Corvus monedula</i>
Long-tailed tit	<i>Aegithalos caudatus</i>
Mallard	<i>Anas platyrhynchos</i>
Pheasant	<i>Phasianus colchicus</i>
Rabbit	<i>Oryctolagus cuniculus</i>
Robin	<i>Erithacus rubecula</i>
Song thrush	<i>Turdus viscivorus</i>
Wood pigeon	<i>Columba palumbus</i>

Table.4 Faunal species recorded

PROTECTED AND NOTABLE SPECIES SURVEY RESULTS

ITEM	OBSERVATIONS
Mammals and Herpetofauna	
Amphibians	<p>There are no records of great crested newt (<i>Triturus cristatus</i>) within 1km. The nearest record comes from The Shrubberies LNR approximately 1.4km south-west of the site. There are no ponds or areas of standing water within the site or within 500m. The nearest waterbody is Lutton Drain to the west and south-west but this is flowing water and as such does not provide suitable habitat for breeding population of GCN.</p> <p>The terrestrial habitats within the site are of limited value dominated by short managed amenity grassland. The site is bounded by a road to the east, residential buildings to the north and south and the holiday park to the west. These land uses and habitat types within are unlikely to support amphibians.</p> <p>There are no wood/brash/rubble piles which could provide refuge and hibernaculum for herpetofauna and there is no reason to expect great crested newts and other amphibians would be attracted specifically to the proposal site.</p> <p>Overall the risk to great crested newts is considered to be sufficiently low to warrant no further surveys of the wider network of drains.</p>

Badgers	<p>There are no historical badger records close to the site other than a road fatality along the A17. During the survey we could not find any evidence of badger setts, foot prints, droppings, latrines or foraging tracks within the site.</p> <p>The development area comprises habitats of low interest. There is limited habitat connectivity to the wider landscape. In the unlikely event that any badgers are found during the course of the proposed works, work should be halted immediately, Natural England should be informed and allowed time to advise on the best way to proceed.</p>
Bats	<p>4 bat species have been recorded in the area including common pipistrelle, soprano pipistrelle, brown long-eared bats and <i>Myotis spp.</i> None of the trees within or bordering the application area were of sufficient age or size to have developed any suitable bat roosting features such as flaking bark, rot holes, cracks etc. The dense foliage of the Leyland cypress hedges (HR1, HR2) could provide refuge for solitary and non-breeding bats during the summer months.</p> <p>The two brick bungalows are of modern construction and lacked any obvious features that could be used by roosting bats. The pan-tiles and ridge tiles were tight fitting and the external eaves were closed.</p> <p>Due to the time of year it was not possible to undertake any dusk surveys, however for the purpose of this report we have assumed presence of foraging and commuting bats. Subject to the protection of the mature trees and hedges from direct disturbance during construction and indirect disturbance from lighting no further surveys are required.</p> <p>The development area is connected to the surrounding landscape through the hedgerows and tree lines along the roadside boundary.</p> <p>Bats and their roosts are afforded strict protection under various legal instruments including the Wildlife and Countryside Act 1981 (as amended), and the Habitats Directive (92/43/EEC) as implemented by the Conservation (Natural Habitats &c.) Regulations 1994 (Amended 2010) in Britain. These prohibit intentional killing, injuring or taking; possessing; intentional or reckless damage, destruction or obstruction of any structure or place used for shelter or protections, and selling or offering for sale.</p>
Birds	<p>Some birds were recorded but clearly the time of year was not suitable to provide an accurate sample or an indication of breeding. Small passerines such as robin (<i>Erithacus rubecula</i>), great tit (<i>Parus major</i>), blue tit (<i>Cyanistes caeruleus</i>) and blackbird (<i>Turdus merula</i>) were noted as well as dunnock (<i>Prunella modularis</i>) and pigeon (<i>Columba palumbus</i>). There was limited evidence of bird nesting in the cypress hedges to the north and south. The likely presence of ground nesting birds is low.</p> <p>A breeding bird survey was beyond the remit of this survey and subject to demolition, clearance and arboricultural works being undertaken outside of the bird nesting season (mid-march to august) no further surveys are deemed necessary. Care should be taken to ensure that no nesting wild birds are disturbed during clearance work which should take place between August and early March of any given year. Should clearance of</p>

	<p>the site be undertaken outside of these months then a suitably qualified ecologist must be engaged to check for nesting birds.</p> <p>(N.B. With the exception of eleven derogated pest or very common species, the Wildlife and Countryside Act (1981 and amendments) gives protection to all wild birds in Britain from killing, injuring or taking as well as taking, damaging or destroying nests in use or being built, and taking or destroying eggs.)</p>
Dormice	There are no historical records within the area and a detailed search of the hedges revealed no evidence of dormice activity or nests.
Otters	There are no historical records of this species from the desk study and there are no suitable habitats present.
Reptiles	<p>There are no reptile records within the 1km search radius. There are no high value terrestrial habitats within the construction zone as comprises short, mown amenity grassland, bare ground and buildings.</p> <p>The likely presence of reptiles is low so there are no obvious and immediate implications for slow-worms, common lizards or grass snakes. However, if they are found to be present, work must cease and mitigation measures must be undertaken. This must be carried out on the advice of a suitably qualified herpetologist. A precautionary approach to site clearance must be undertaken in accordance with the Mitigation section of this report, primarily within potential refuges and hibernaculum.</p> <p>Reptiles are protected against intentional killing and injuring, sale and transport for sale under the Wildlife and Countryside Act 1981 (as amended). Natural England states that activities such as site investigations, site clearance and movements of machinery may breach this legislation by causing death or injury to reptiles (English Nature, 2004).</p>
Water Vole	The Internal Drainage Board (IDB) has water vole records from around Long-Sutton. A search of the banks of Lutton Drain to the west and south-west of the site did not reveal any obvious signs. Water voles rarely stray far from their burrows and so there are no obvious implications of their presence.
White-Clawed Crayfish	There are no historical records of this species from the desk study and there are no suitable habitats present.
Hedgehog	There are 3 records of hedgehog (<i>Erinaceus europaeus</i>) within 1km. Any brash/wood piles should be checked for hedgehog before burning.
Invertebrates	The scattered trees offer potential for invertebrate species.

Table.5 Protected Faunal Species Records

ECOLOGICAL EVALUATION AND IMPACT ASSESSMENT

Identification of Impacts-

Indirect impacts on designated sites and adjacent habitats during clearance and construction and impacts during usage of the site are as follows:

Clearance and Construction phase impacts:

- Noise disturbance: Best practice construction measures would be employed to ensure that the development does not adversely impact upon neighbouring properties: World Health Organisation (WHO) guidance and acceptable limits set out in BS5228:2009 would be adhered to. It is considered that residual minor construction site noise generation would not impact upon any internationally designated site above 2km distant.
- Dust deposition: Best practice construction measures would be employed to ensure that the development does not adversely impact upon neighbouring properties. Such measures might include standard measures such as avoidance of tipping materials in windy conditions and spraying would be employed. It is not considered that dust generation would give rise to increased deposition upon an internationally designated site above 2km distant.
- Visual impacts: the proposed development site is not visible from any internationally designated sites, being screened by existing housing, trees, hedges and vegetation.
- Pollution of surface water or groundwater: Best practice construction measures including use of bunded containers would be employed to ensure that there is no pollution of surface water or groundwater.

Impacts during usage (occupation) of site

- Visual impacts: the proposed development site is not visible from any internationally designated sites, being screened by existing housing, trees, hedges and vegetation.
- The potential for impact upon water resources, specifically water availability has also been considered. 5 new dwellings are unlikely to have any notable demand on the local water supply.
- There are no anticipated recreational pressures on any statutory designated wildlife sites given none are present within 2km.

In summary the impact of the proposed development upon any statutory designated sites is therefore provisionally assessed as **neutral**.

Sites of National Importance-

There are no sites present within 2km and so the impact from the proposed development is assessed as **neutral**.

Sites of Regional/Local Importance-

The Shrubberies (LNR) is approximately 1.4km south-west of the site and so no direct or indirect impacts can be considered likely. The site has no public access and so there will be no increase in recreational pressure. The impacts of the development are considered **Neutral** in the long-term.

Habitats-

Habitats on site offering some ecological interest are limited to the mature scattered trees and hedges which will be of value to nesting and foraging birds, foraging and commuting bats, small mammals and invertebrates.

Overall, the habitats on Site are provisionally assessed as being at the **Lower** value at the **Parish/Neighbourhood scale**. Impacts are considered to be **Neutral**.

A summary of the ecological significance of the habitats on site is presented below, **Table.6**.

Habitat	Local Ecological Significance	Justification
Bare Ground and Buildings	Low	Bare and disturbed ground of low value. Buildings have no obvious access or features likely to support nesting birds or roosting bats.
Amenity Grassland	Low	Mown grassland is species poor and regularly disturbed reducing its value for wildlife. May provide some foraging habitat for birds and small mammals.
Scattered Trees	Moderate	Limited extent within the east section of the site. Most are relatively young and all of planted origin. Provides food source and refuge for nesting birds, small mammals and invertebrates. No trees identified as having high bat roosting potential.
Species Poor Hedges	Moderate	Hedges are of value to nesting birds, foraging and commuting bats and provide shelter and food for small mammals, birds and invertebrates.

Table.6 Ecological Significance of Habitats

A summary of the protected species impact assessment is presented below, **Table.7**.

Species Group	Reason for Consideration	Likelihood of Presence
Amphibians	Site may provide suitable terrestrial habitat for this species.	Low —No records of GCN within 1km and no ponds or suitable areas of standing water within 500m. Low value terrestrial habitats within the site. The value of the site to amphibians is assessed as Lower at the Parish/Neighbourhood scale and the impact of the development subject to mitigation is Neutral .

Badger	Connectivity to wider landscape	<p>Negligible – No evidence of badgers was recorded and application site of limited interest. Site has limited connectivity to wider landscape and contains some foraging habitat.</p> <p>The value of the Site to badgers is assessed as Lower at the Parish/Neighbourhood scale and the impact of the development is considered to be Neutral.</p>
Bats	Potential commuting and foraging corridors.	<p>High - It is expected that species already identified in the search area such as Common pipistrelle <i>Pipistrellus pipistrellus</i>, Soprano pipistrelle <i>P. pygmaeus</i> and Brown long-eared <i>Plecotus auritus</i> may forage along the hedges and trees bordering the site. The presence of bat roosts within the trees was assessed as low. The value of the Site to bats is assessed as Lower at the Parish/ Neighbourhood scale due to the probability of minor use and connectivity to the wider environment.</p> <p>The impact of the development upon bats is considered to be Neutral subject to retention and protection of the mature trees and boundary hedges. The built scheme should take the opportunity to enhance vegetation connectivity in the locale and provide landscape planting (native species or species which are attractive to insects, and thus enhance foraging opportunity). Roosting features to be incorporated into the new houses.</p>
Breeding Birds	Bird nesting habitat in hedges and trees. Several birds were noted during the survey. Records of birds of conservation concern and BAP species within the wider site.	<p>Present- Evidence of nesting and nest building species. Good nesting potential for species nesting in trees and hedgerows</p> <p>The value of the site, for breeding birds is assessed as likely being of Lower value at the Parish/ Neighbourhood scale and the impact of the development is judged to be Minor Adverse. The site could be enhanced for birds through the use of bird boxes, planting of hedgerows and trees and the use of berry and nectar bearing species.</p>
Dormouse	NA	Negligible – No records or suitable habitats
Otter	NA	Negligible – No records or suitable habitats
Reptiles	Site may provide suitable terrestrial habitat for reptile species.	<p>Low – Reptile presence is considered to be low due to the lack of core habitat requirements for reptile species. The value of the site to reptiles is therefore assessed as Lower at the Parish/Neighbourhood scale. The impact of the development upon reptiles is considered to be Neutral. Because of the low risk of impact upon the more mobile reptile species such as grass snake, it is suggested that mitigation, in the form of mowing management, is carried out.</p>
Water Vole	NA	Negligible – No records or suitable habitats
White Clawed-Crayfish	NA	Negligible – No records of suitable habitats

Table.7 Protected Species Risk Assessment

MITIGATION

Ground Clearance Works-

- As per the recommendations above vegetation clearance and excavation works across the site should ideally be performed outside of the active bird breeding season 1st March- 31st August inclusive. If this is not possible a bird surveyor should visit the site to check for evidence of nesting birds prior to any clearance works.
- Rough grassland and tall ruderal vegetation across the construction areas will be trimmed to make the habitat less suitable for reptiles and amphibians. In addition, any artificial and natural refugia within the working areas (brash pile/grass pile) would be hand-searched for the presence of reptiles and amphibians prior to commencement of works.
- Clearance of any potential reptile habitat should ideally be undertaken between mid-march and mid-june on a warm (above 13°C), dry day with little wind. In this way, the majority of amphibians would be in breeding ponds/standing water and therefore would be less likely to be in terrestrial refuges where they may be at risk of harm. Widespread reptiles would also be active at this time and so could escape harm's way were they present.
- A minimum buffer strip of 3m should be left undisturbed along the boundary hedgerows. Care should be taken with regards to vegetation clearance and earthworks due to potential disturbance to nesting birds, amphibians and bats.

Construction and Working Practices-

- The timing of construction works will be sensitive to nesting birds. If possible, it is proposed that operations within the working area would preferably be started outside of the bird breeding season to minimise the risk of disturbance to breeding birds that have already commenced nesting. Once works commence birds are unlikely to start nesting within the working area. However, in order to avoid accidental harm to nesting birds, a 15m buffer zone will be marked around any nest using high visibility fencing to ensure that the nest is not disturbed, damaged or destroyed whilst in use.
- If any ground nesting birds are found to be nesting within or close to the working areas during the pre-inspection survey or clearance, a 25m standoff from the nest will be marked out and observed, within which no operational activity would be permitted until the breeding attempt had concluded.
- Bird and bat boxes will be erected on the boundary trees and buildings to provide additional nesting and roosting opportunities and to compensate for potential disturbance to nesting birds and bat foraging activity.

- In the unlikely event that protected species are discovered, works would need to stop until the situation has been further assessed, and if necessary, a mitigation strategy developed and an application made for a site license.
- The site manager and other relevant staff will be briefed (by suitably qualified ecologist) on the possible presence of protected species in the area (Toolbox talk). Staff will be provided with information relating to the legislation which protects species and habitats and briefed on the procedures to prevent disturbance or destruction of individuals or their habitats. Staff will also be briefed on the emergency procedures to be implemented should protected species be found during clearance and construction works.
- Habitats removed, wherever possible will be replaced at the earliest opportunity with native or wildlife attracting species.
- Trenches, pits or holes dug on site that are to be left over night will be covered over or have a ramp placed in them so that any wildlife that falls in can climb out safely;
- The proposed location of the site compounds and any material storage areas will not extend into more important habitats, notably the hedges and tree RPA's. These key areas should be fenced off to prevent direct habitat disturbance.
- Care should also be taken if lighting any bonfires as these may be potential hedgehog refugia/hibernation sites. Any brash and log piles on site will be searched by hand before removal/burning (see above) and if they are discovered they should be translocated to a suitable location.

Lighting-

- Any new external lights will be set on a motion detector and positioned in such a way that they do not shine on the tree canopies or hedgerows. Low intensity lighting should be used where possible in place of high intensity discharge or sodium lamps, this will minimize disturbance to foraging and commuting bats.

In accordance with the Bat Conservation Trust's publication *Bats and lighting in the UK* (BCT, 2008) light pollution by artificial lighting will be kept to a minimum and light spillage avoided. The following specific mitigation will be put in place to minimize disturbance to bats caused by the lighting of the site:

- Lights will be pointed away from major bat flyways and foraging areas;
- Screen planting will be wide and tall to maintain natural light conditions away from the site;
- Low or high pressure sodium lamps will be used instead of mercury or metal halide lamps;
- The light will be directed only to where it is needed, for example, by the use of hoods;

Tree Works-

- All middle aged and mature trees where possible to be retained and protected in line with British Standard: 5837:2012 "Trees in Relation to Design, Demolition and Construction"
- If tree removal is scheduled between the months of 1st March and 31st August then a breeding/nesting bird survey should be first undertaken by the SQE.
- A search of any tree holes, cavities, flaking bark and dense creeping ivy will be undertaken to confirm the absence of any roosting bats, this is particularly important during the summer months when such features are used more frequently.
- In the event that any active nests are identified, no operational activity will be permitted within the stand-off zones until the breeding attempt had concluded.

Pollution Control-

Standard pollution prevention measures will be put in place including measures such as preventing dust by damping down bare ground and ensuring fuel is stored in bunded tanks. The Environment Agency PPG1 and PPG6 guidance on *General Guide to the Prevention of Pollution and Working at Construction and Demolition Sites* will be adhered to throughout the construction of the Proposed Development.

Liquid-

Many of the materials used in construction operations, such as oil, chemicals, cement, lime, cleaning materials and paint have the potential to cause serious pollution. All fuel, oil and chemical storage must be sited on an impervious base within a bund and secured. The base and bund walls must be impermeable to the material stored and of an adequate capacity.

Leaking or empty oil drums must be removed from the site immediately and disposed of via a licensed waste disposal contractor. The contents of any tank are to be clearly marked on the tank, and a notice displayed requiring that valves and trigger guns be locked when not in use. Concrete is highly alkaline and corrosive and can have a serious impact on groundwater, soil and watercourses. It is essential to take particular care with all works involving concrete and cement. Suitable provision is to be made for the washing out of concrete mixing plant or ready mix concrete lorries so that washings do not flow into any drains or watercourse or seep underground.

Air, Noise and Vibration-

Contractors will be expected to take measures to minimize the presence of air borne dust during clearance and construction. If possible any activities producing in excess of 70db should be avoided during the bird nesting season.

HABITAT CREATION, RESTORATION AND ENHANCEMENT

The Natural Environment and Rural Communities Act 2006 (NERC) came into force on 1st October 2006. Under section 40 of the Act all public bodies have a duty to conserve biodiversity:

- “Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity.”

Section 40(3) of the Act explains that:

- “Conserving biodiversity includes, in relation to a living organism or type of habitat, restoring or enhancing a population or habitat”.

The duty applies to all local authorities and extends beyond just conserving what is already there to carrying out, supporting and requiring actions that may also restore or enhance biodiversity. This section sets out some measures which the developer should incorporate within the proposals to help maintain and improve the ecological value of the site generally during and after the proposed development.

Habitat Supplementation-

Birds – To mitigate for the loss of nesting habitat and to increase nesting opportunities generally, nest boxes should be installed. Installation of the nest boxes will be supervised by ‘Eco- Check Ltd’ or an experienced ecologist to ensure the correct positioning for each species. The types of nest boxes will cover a range of species and could include;

Cedarplus wooden boxes, Schwegler 1B general nest boxes, Wren roundhouse boxes, Schwegler 1N deep nest boxes for robins, Schwegler 2GR nest boxes, Schwegler 2M bird boxes, Schwegler treecreeper boxes.

Bats- At present the availability of bat roosts within the site is very limited apart from the dense cypress hedges. The combination of hedges and trees are valuable to foraging and commuting bats.

Bat Boxes- To compensate for any loss of habitat and disturbance of bat activity we recommend that some bat boxes be erected within the site. To compensate for the potential disturbance, areas for bats to roost in should be created, the following are suggested;

2 x ‘Schwegler 2F-DFP’ bat boxes favoured by Daubenton’s bat and Nathusius pipistrelle;

2x ‘Schwegler 2FN’ bat boxes, particularly successful in attracting Noctule and Bechstein’s bats;

2x ‘Schwegler 2F’ bat boxes, these boxes are particularly attractive to the smaller British bats.

These boxes are to be installed on the boundary trees within the site, ideally one on each elevation to provide the best variation in temperature, shelter and flight lines. If only one elevation is used this should be south-east facing as this provides the most shelter and warmth.

Any new external lights will be set on a motion detector and positioned in such a way that they do not shine on the hedgerows, trees, pond or proposed bat and bird boxes. Low intensity lighting should be used where possible in place of high intensity discharge or sodium lamps, this will minimize disturbance to foraging and commuting bats.

FURTHER SURVEYS

It is advised that if a period of more than 18 months passes between the date of this survey and the commencement of clearance works then a further site survey should be made in addition to the pre-works checks outlined above.

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APPENDIX 1

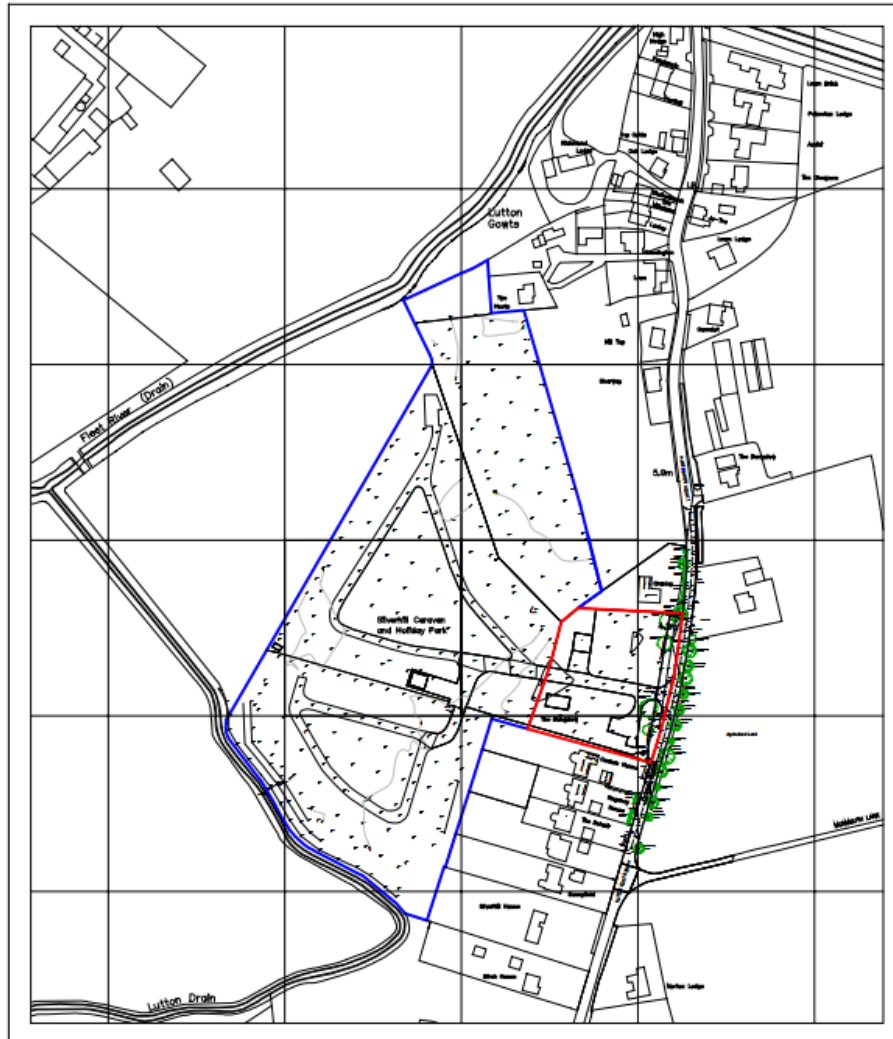


Site Location Map – Streetmap 2014



Aerial View of Site and Adjacent Habitats – Bing Maps 2014

PROPOSED DWELLINGS AT SILVERHILL HOLIDAY PARK, LUTTON GOWTS, LONG SUTTON, SPALDING, PE12 9LQ FOR PURE LEISURE GROUP



LOCATION PLAN

0 20 40 60 80 100 120 140 160 180 200 220 240 [M]



Location Plan - Metres @ 1:2500 @ A3



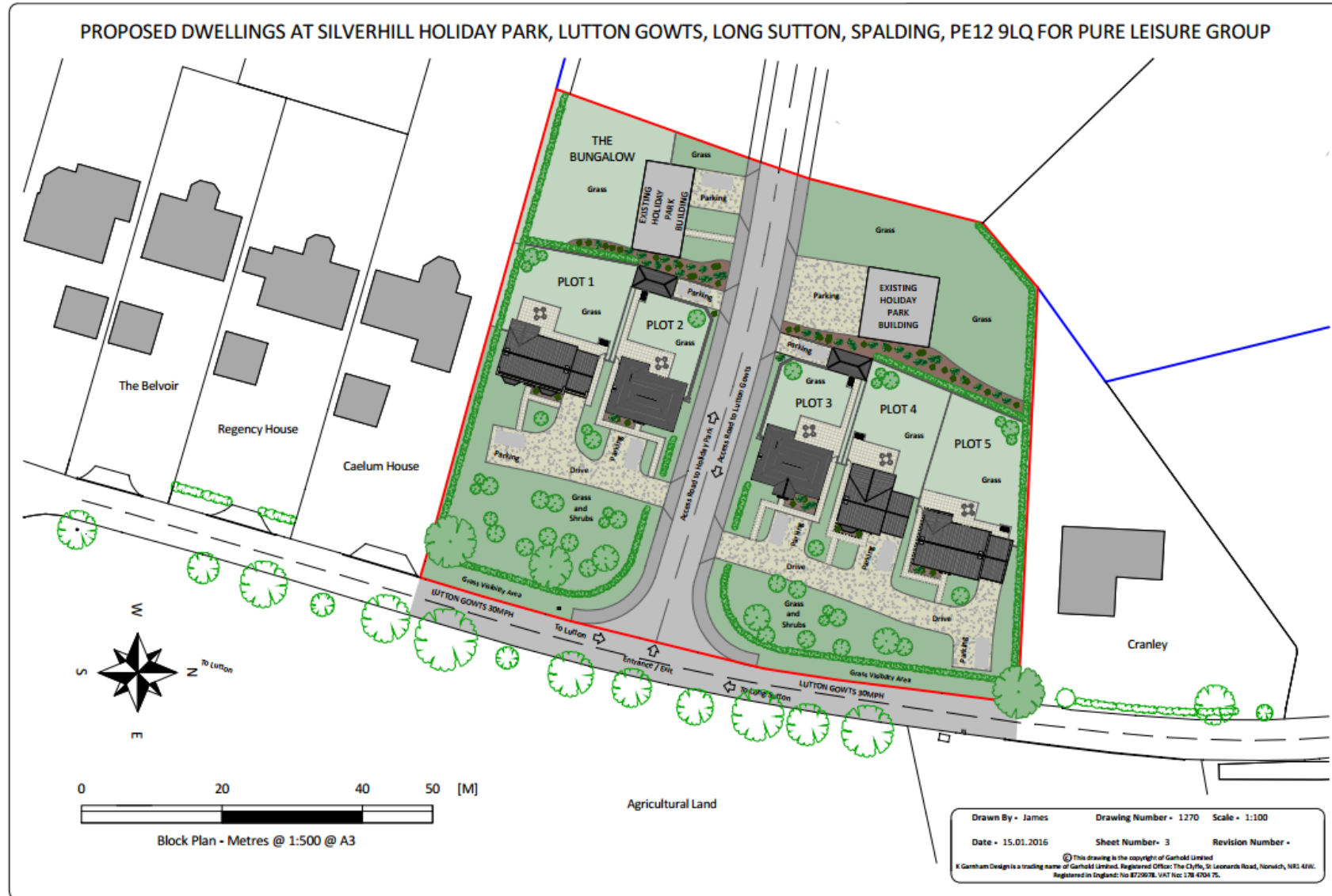
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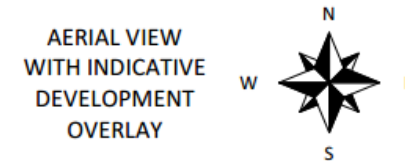
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Date - 15.01.2016 Sheet Number - 1 Revision Number -

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PROPOSED DWELLINGS AT SILVERHILL HOLIDAY PARK, LUTTON GOWTS, LONG SUTTON, SPALDING, PE12 9LQ FOR PURE LEISURE GROUP



AERIAL PHOTO WITH PROPOSAL

The site fronts Silverhill Holiday Park being laid to grass and relatively level.

The site boundary to the East is marked by a group of young / semi mature trees adjacent Silverhill. These are affected by the development with various trees to be removed however it is proposed to replace these with quality native trees to compensate for any losses.

The site boundary to the North and South is marked by mature hedging of varying quality and these are unaffected by the development.

The Western (rear) aspect of the site is not physically marked being part of Silverhill Holiday Park.

To the South and North there are neighbouring dwellings screened by hedging.

The East (front) of the site is marked by Chestnut paling fencing. It is proposed to replace this with a traditional native hedge whilst allowing for adequate visibility splays.

Five new houses are proposed in a range of unit sizes. The dwellings proposed are 5 x 4 bed roomed detached houses all with garaging.

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APPENDIX 2



Site entrance and roadside boundary



Scattered trees along eastern boundary



South-east corner of site, shingle parking area and static caravan



View of south boundary hedge (HR2) and bungalow



View of amenity grassland and scattered trees



View of north boundary hedgerow (HR1) and scattered trees

APPENDIX 3

Species Recorded During Phase 1 Survey

D = dominant, A= abundant, F = frequent, O = occasional, R = rare

Common Name	Scientific Name	DAFOR
Ash	<i>Fraxinus excelsior</i>	O
Beech	<i>Fagus sylvatica</i>	R
Bramble	<i>Rubus fruticosus</i>	O
Bristly ox-tongue	<i>Helminthotheca echinoides</i>	O
Broadleaf dock	<i>Rumex obtusifolius</i>	F
Buddleja	<i>Buddleja davidii</i>	F
Ceanothus	<i>Ceanothus spp</i>	R
Cleavers	<i>Galium aparine</i>	F
Comfrey	<i>Symphytum officinale</i>	O
Common nettle	<i>Urtica dioica</i>	D
Cotoneaster	<i>Contoniaster frigidus</i>	O
Cork screen willow	<i>Salix matsudana</i>	R
Creeping buttercup	<i>Ranunculus repens</i>	A
Creeping thistle	<i>Cirsium arvense</i>	F
Crocus	<i>Crocus longiflorus</i>	O
Daffodil	<i>Narcissus spp</i>	F
Dandelion	<i>Taraxacum officinale agg.</i>	F
Elder	<i>Sambucus nigra</i>	O
Foxglove	<i>Digitalis purpurea</i>	R
Ground Ivy	<i>Glechoma hederacea</i>	F
Groundsel	<i>Senecio vulgaris</i>	O
Gum	<i>Eucalyptus spp.</i>	R
Hazel	<i>Corylus avellana</i>	O
Ivy	<i>Hedera helix</i>	A
Laurel	<i>Lauris nobilis</i>	F
Leyland cypress	<i>Cupressocyparis leylandii</i>	D
Mallow	<i>Malva sylvestris</i>	O
Oak	<i>Quercus robur</i>	O
Perennial ryegrass	<i>Lolium perenne</i>	D
Primrose	<i>Primula vulgaris</i>	O
Purple dead nettle	<i>Lamium purpureum</i>	F
Ragwort	<i>Senecio jacobaea</i>	O
Rhododendron	<i>Rhododendron ponticum</i>	F
Ribwort plantain	<i>Plantago lanceolata</i>	F
Rose	<i>Rosa spp.</i>	F
Scot's pine	<i>Pinus sylvestris</i>	F
Silver birch	<i>Betula pendula</i>	F
Sumac	<i>Rhus typhina</i>	R
Sycamore	<i>Acer pseudoplatanus</i>	A
White dead nettle	<i>Lamium album</i>	A

White Dutch clover	<i>Trifolium repens</i>	F
Wild cherry	<i>Prunus avium</i>	F
Wild Privet	<i>Ligustrum vulgare</i>	F
Willow	<i>Salix spp.</i>	A
Willowherb	<i>Epilobium angustifolium</i>	O

APPENDIX 4



Local Nature Reserves

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The Shrubberies

LNR Type:	Rural
County:	Lincolnshire
Natural England Regional Team:	East Midlands
Year of Declaration:	2006
Declaring Authority:	Lincolnshire County Council
Area (Ha):	Click here to open the site map (new window). Once displayed, click on the site to see area and other details.
Grid Reference:	TF 425 234
Location:	Long Sutton, PE12 9BT
Owned by:	Lincolnshire Wildlife Trust
Managed by:	Lincolnshire Wildlife Trust
Link to site map:	Click here to open the site map from the MAGIC web site.
How to get there:	Situated at the end of Long Sutton, the reserve lies to the south of the old A17. The entrance is via a gate from a small side road (Garnsgate Road) where cars may be parked.
What to see:	The Shrubberies comprise old parkland and pasture of a type now rare in the Fens with fine oak and other large trees. Some 49 species of birds and 12 species of butterflies have been recorded. There is a pond with a wooded island and adjoining marshy areas with fringing alders. The grassland is grazed and sometimes cut for hay. An acre of land was planted with native trees in 1989.
Volunteer and 'Friends of' groups:	Volunteer with the Wildlife Trust www.lincstrust.org.uk/lwt/helping.php
Contacts for further information and how to get involved:	Lincolnshire Wildlife Trust on Tel. 01507 526667
Website address and other links:	www.lincstrust.org.uk/reserves/nr/reserve.php?mapref=55 or try www.lincstruct.org.uk and search for The Shrubberies Nature Reserve.

Last Updated: 28/01/2013

Wildlife site legislation

A variety of sites are designated in the UK, under various Conventions, Directives and Regulations, for their nature conservation importance and interest. The general aim of these designations is to conserve and protect ecological resources in addition to raising awareness and understanding. Other non-statutory sites are afforded some protection through local plans.

RAMSAR Sites

Wetlands of international importance. Ramsar Sites are effectively protected, through the planning system, under the Wildlife and Countryside Act 1981, as amended, and the Countryside and Rights of Way Act 2000 through their notification as SSSIs and through other regulatory systems addressing water, soil and air quality.

Special Protection Areas (SPAs)

SPAs are the most important habitats for rare and migratory birds within the European Union. The Birds Directive, adopted by the UK in 1979, provides for the protection, management and control of all species of naturally occurring wild birds in the European territory of Member States, including the UK. The provisions of the Birds Directive are transposed into English law by the Conservation of Natural Habitats and Species Regulations 2010.

Special Areas of Conservation (SACs)

SACs are sites that are chosen to conserve the natural habitat types and species of wild flora and fauna listed in Annex I and II of the Habitats Directive. They are the best areas to represent the range and variety of habitats and species within the European Union. The provisions of the Habitats Directive were transposed into English law by the Conservation of Natural Habitats and Species Regulations 2010.

Sites of Special Scientific Interest (SSSIs)

SSSIs are nationally important sites for wildlife, geological and geomorphological features in England. They are designated and protected under the National Parks and Access to the Countryside Act 1949 and the Wildlife and Countryside Act 1981, as amended. They receive additional protection under the Countryside and Rights of Way Act 2000.

National Nature Reserves (NNRs)

NNRs are nationally important areas of wildlife habitat and geological formations in Britain. NNRs are designated and protected under the National Parks and Access to the Countryside Act 1949 and the Wildlife and Countryside Act 1981, as amended. They receive additional protection under the Countryside and Rights of Way Act 2000. They are managed for the benefit of nature conservation.

Local Nature Reserves (LNRs)

LNRs are similar to NNRs but they apply to the local context. They are sites of value to nature conservation and are designated under the National Parks and Access to the Countryside Act 1949. They are managed for the benefit of nature conservation.

Hedgerows

Hedgerows are a very significant wildlife habitat over large parts of Britain. They provide essential refuge for a great many woodland and farmland plants and animals. Hedgerows are given protection under The Hedgerows Regulations 1997. As a result, since 1 June 1997, it has been against the law to remove most countryside hedgerows (or parts of them) without first notifying the local planning authority.

Ancient Woodland

Ancient woodlands are woodlands that have been established since or before 1600AD. They are nonstatutory sites and are not legally protected but they may be afforded some protection in, for example, structure and local plans.

County Wildlife Sites

These non-statutory sites are sites designated by a local authority as being of County nature conservation value but may not be notified as SSSIs. These selected sites are known as wildlife sites (WS), sometimes called SINCs or SNCIs.

Local Sites

These non-statutory sites may be designated by a local authority as being of local nature conservation value but are not notified as SSSIs. They have a variety of titles dependent upon the designating authority.

Regionally Important Geological / Geomorphological Sites (RIGS)

Regionally Important Geological and Geomorphological Sites (RIGS) are designated by locally developed criteria and are currently the most important places for geology and geomorphology outside statutorily protected land such as Sites of Special Scientific Interest (SSSI). The designation of RIGS is one way of recognising and protecting important earth science and landscape features.

Species Legislation and Protection

The legislation which protects various species within the British fauna or flora is outlined below:

Birds

The Birds Directive (1979)

The European Community Council Directive on the Conservation of Wild Birds (79/409/EEC) sets out general rules for the conservation of all naturally occurring wild birds, their nests, eggs and habitats.

Wildlife and Countryside Act 1981

Sections 1 to 8 of the Wildlife and Countryside Act relate to the protection of birds. All birds, their nests and eggs are protected by law and it is thus an offence, with certain exceptions to:

- intentionally kill, injure or take any wild bird
- intentionally take, damage or destroy the nest of any wild bird whilst it is in use or being built
- intentionally take or destroy the egg of any wild bird
- have in one's possession or control any wild bird, dead or alive, or any part of a wild bird, which has been taken in contravention of the Act or the Protection of Birds Act 1954
- have in one's possession or control any egg or part of an egg which has been taken in contravention of the Act or the Protection of Birds Act 1954
- use traps or similar items to kill, injure or take wild birds
- have in one's possession or control any bird of a species occurring on Schedule 4 of the Act unless registered, and in most cases ringed, in accordance with the Secretary of State's regulations (see Schedules)

Countryside and Rights of Way Act 2000

This act strengthens the existing provisions of the Wildlife and Countryside Act 1981 for the enforcement of wildlife legislation, including a new offence of "recklessly" disturbing any wild bird listed on Schedule 1 while it is nest building, or at a nest containing eggs or young, or recklessly disturbing the dependent young of such a bird.

UK Biodiversity Action Plan Priority Species

A number of British Birds are UK Priority Species for Conservation under the UK Biodiversity Action Plan and a National Species Action Plan has been produced. The protection of UK BAP Priority Species is implemented through Local Planning Policy.

Bats

The Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention)

The Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention or CMS) was adopted in Bonn, Germany in 1979 and came into force in 1985. Contracting Parties work together to conserve migratory species and their habitats by providing strict protection for endangered migratory species (listed in Appendix 1 of the Convention), concluding multilateral Agreements for the conservation and management of migratory species which require or would benefit from international cooperation (listed in Appendix 2), and by undertaking co-operative research activities.

The European Community is a party to CMS. In general it undertakes activities under the Convention involving issues where the Community has 'competence' (the authority to act as a Community rather than as the member states individually or collectively as the Union). Thus the Community is a Party to the Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas (ASCOBANS) as this agreement has significant relevance to fishing activities, over which the Community has authority within the Union.

The UK ratified the Convention in 1985. The legal requirement for the strict protection of Appendix I species is provided by the Wildlife & Countryside Act (1981 and as amended). The UK has currently ratified three legally binding Agreements under the Convention: the Agreement on the Conservation of Populations of European Bats (EUROBATS); the African-Eurasian Migratory Waterbird Agreement (AEWA); and ASCOBANS. An Agreement on the Conservation of Albatrosses and Petrels is currently in the process of being ratified; as of May 2002, eight countries including the UK had so far signed, and the Agreement will enter into force after five countries have ratified. The UK has also ratified the Memorandum of Understanding (MoU) on the Conservation and Management of Marine Turtles and their Habitats of the Indian Ocean and South-East Asia, in respect of the British Indian Ocean Territory.

The Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention) 1979

The Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention) was adopted in Bern, Switzerland in 1979, and came into force in 1982. The principal aims of the Convention are to ensure conservation and protection of all wild plant and animal species and their natural habitats (listed in Appendices I and II of the Convention), to increase cooperation between contracting parties, and to afford special protection to the most vulnerable or threatened species (including migratory species) (listed in Appendix 3). To this end the Convention imposes legal obligations on contracting parties, protecting over 500 wild plant species and more than 1000 wild animal species.

To implement the Bern Convention in Europe, the European Community adopted Council Directive 79/409/EEC on the Conservation of Wild Birds (the EC Birds Directive) in 1979, and Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (the EC Habitats Directive) in 1992. Among other things the Directives provide for the establishment of a European network of protected areas (Natura 2000), to tackle the continuing losses of European biodiversity on land, at the coast and in the sea to human activities.

The Habitats Directive (1992)

The European Community Council Directive on the Conservation of Natural Habitats of Wild Fauna and Flora (92/43/EEC) aims to protect the European Union's biodiversity. It requires member states to provide strict protection for specified flora and fauna (i.e. European Protected Species) outside of designated sites.

The Conservation of Habitats and Species Regulations 2010

The Conservation of Habitats and Species Regulations 2010 formally transpose the requirements of the Habitats Directive into national law (replacing the Conservation (Natural Habitats &c) Regulations 1994). They build on existing nature conservation legislation for the protection of habitats and species by introducing requirements for assessing plans and projects affecting European designations and licensing certain activities affecting European Protected Species. All bats are listed as 'European protected species of animals'.

Licences are required for checking known roosts or for carrying out work that may disturb bats, such as the management or disturbance of features that are known to be used as roosting sites.

Wildlife and Countryside Act 1981

This act provides varying degrees of protection for the listed species of flora and fauna. All UK native species of Bat are listed in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). The legislation protects bats and their roosts under Section 9 of the Act, such that it is an offence to:

- Intentionally kill, injure or take a bat
- Possess, control or sell any live or dead specimen or anything derived from a bat
- Intentionally damage, destroy or obstruct access to any structure or place used for shelter or protection (i.e. a roost) by a bat
- Deliberately, or intentionally disturb a bat while it is occupying a roost

Countryside and Rights of Way Act 2000

This act strengthens the existing provisions of the Wildlife and Countryside Act 1981 for the enforcement of wildlife legislation, including a new offence of "recklessly" disturbing bats or recklessly damaging, obstructing or destroying their roosts.

UK Biodiversity Action Plan Priority Species

Several species of bat are UK Priority Species for Conservation under the UK Biodiversity Action Plan and a National Species Action Plan has been produced for these species. The protection of UK BAP Priority Species is implemented through Local Planning Policy.

Otter

The Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention) 1979

The Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention) was adopted in Bern, Switzerland in 1979, and came into force in 1982. The principal aims of the Convention are to ensure conservation and protection of all wild plant and animal species and their natural habitats (listed in Appendices I and II of the Convention), to increase cooperation between contracting parties, and to afford special protection to the most vulnerable or threatened species (including migratory species as listed in Appendix III of the Convention). To this end the Convention imposes legal obligations on contracting parties, protecting over 500 wild plant species and more than 1000 wild animal species.

To implement the Bern Convention in Europe, the European Community adopted Council Directive 79/409/EEC on the Conservation of Wild Birds (the EC Birds Directive) in 1979, and Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (the EC Habitats Directive) in 1992. Among other things the Directives provide for the establishment of a European network of protected areas (Natura 2000), to tackle the continuing losses of European biodiversity on land, at the coast and in the sea to human activities.

The Habitats Directive (1992)

The European Community Council Directive on the Conservation of Natural Habitats of Wild Fauna and Flora (92/43/EEC) aims to protect the European Union's biodiversity. It requires member states to provide strict protection for specified flora and fauna (i.e. European Protected Species) outside of designated sites.

The Conservation of Habitats and Species Regulations 2010

The Conservation of Habitats and Species Regulations 2010 formally transpose the requirements of the Habitats Directive into national law (replacing the Conservation (Natural Habitats &c) Regulations 1994). They build on existing nature conservation legislation for the protection of habitats and species by introducing requirements for assessing plans and projects affecting European designations and licensing certain activities affecting European Protected Species.

Licences are required for carrying out work that may disturb or injure Otter or destroy breeding sites.

Wildlife and Countryside Act 1981

This act provides varying degrees of protection for the listed species of flora and fauna. Otter is a Schedule 5 species and is fully protected under Section 9 of the Wildlife and Countryside Act (as amended) under which it is an offence to:

- intentionally kill, injure or take an Otter
- deliberately capture or kill an Otter
- possess or control any live or dead specimen or anything derived from an Otter
- intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by an Otter
- deliberately, intentionally or recklessly disturb an Otter while it is occupying a structure or place which it uses for that purpose

UK Biodiversity Action Plan Priority Species

Otter is a UK Priority Species for Conservation under the UK Biodiversity Action Plan and a National Species Action Plan has been produced. The protection of UK BAP Priority Species such as Otter is implemented through Local Planning Policy.

Water Vole

Wildlife and Countryside Act 1981

This act provides varying degrees of protection for the listed species of flora and fauna. Since April 2008 the water vole has received full legal protection through its inclusion on Schedule 5 of the Wildlife and Countryside Act 1981 in respect of Section 9. Full legal protection under the Act makes it an offence to:

- Intentionally kill, injure or take water voles.
- Possess or control live or dead water voles or derivatives
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection
- Intentionally or recklessly disturb water voles whilst occupying a structure or place used for that purpose.
- Sell water voles or offer or expose for sale or transport for sale.
- Publish or cause to be published any advertisement which conveys the buying or selling of water voles.

Countryside and Rights of Way Act 2000

This act strengthens the existing provisions of the Wildlife and Countryside Act 1981 for the enforcement of wildlife legislation, including a new offence of "recklessly" destroying or damaging the habitats of certain protected species, including water vole, or recklessly disturbing water vole.

UK Biodiversity Action Plan Priority Species

Water vole is a UK Priority Species for Conservation under the UK Biodiversity Action Plan and a National Species Action Plan has been produced. The protection of UKBAP Priority Species such as water vole is implemented through Local Planning Policy.

Brown hare

UK Biodiversity Action Plan Priority Species

Brown hare is a UK Priority Species for Conservation under the UK Biodiversity Action Plan and a National Species Action Plan has been produced for this species. The protection of UK BAP Priority Species is implemented through Local Planning Policy.

Hedgehog

UK Biodiversity Action Plan Priority Species