Hedgerows

Hedgerows can act as wildlife corridors that are essential for migration, dispersal and genetic exchange of wild species. Hedgerows that qualify as a Habitat of Principal importance under S41 of the NERC Act 2006 are a material consideration in the planning system.

Under the Hedgerow Regulations 1997, it is an offence to remove a hedgerow without submitting a notice to the Local Planning Authority and waiting for their decision. The Regulations are aimed at countryside hedges and do not apply to hedges around private dwellings or where planning permission has been granted for a project that includes hedge removal. Hedgerows that satisfy wildlife, archaeological, historical or landscape criteria qualify as 'important' under the Regulations. If a hedgerow is not important, the Local Planning Authority may not prevent its removal; however, Local Planning Authorities are required under the Regulations to protect and retain important hedgerows unless satisfied that the circumstances justify its removal.

Trees & Woodlands

Tree Preservation Orders

Tree Preservation Orders (TPOs) may be declared under the Town and Country Planning Act 1990 and the Town and Country Planning (Trees) Regulations 1999 to protect individual trees and woodlands from development and cutting. TPOs are designed to preserve amenity or landscape conservation. The important of trees as wildlife habitat may be taken into account, but alone is not sufficient to warrant a TPO. For this reason, TPOs do not fit comfortably under the remit of nature conservation. Further guidance on TPOs in relation to development is available from the Department for Communities and Local Government¹⁷.

Ancient Woodland & Veteran Trees

Ancient woods are areas continuously wooded for at least 400 years. Even an ancient wood which has been replanted may still have remnants of ancient woodland wildlife and historical features and has potential to be restored. Ancient woodland is not a statutory designation and does not provide legal protection, but local authorities are advised under the NPPF not to grant planning permission for any development that would result in the loss or deterioration of ancient woodland or veteran trees unless the need for, and benefits of, the development outweigh the loss. Local Planning Authorities in the south-east of England must take into account Natural England's *Standing Advice on development and Ancient Woodland*¹⁸.

Surface & Ground Waters

Surface waters (including flowing and standing water) and ground water can directly and indirectly impact upon the conservation of nature. Careful planning and the application of the Environment Agency's *Pollution Prevention Guidelines*¹⁹ can help reduce the risk of construction and maintenance work causing pollution to surface and ground waters. Some activities with the

 ¹⁷ Office of the Deputy Prime Minister (2000). Tree Preservation Orders: A Guide to the Law and Good Practice. Available from: <u>http://www.communities.gov.uk/publications/planningandbuilding/tposguide</u>
¹⁸ Natural England (2011). Standing Advice for Ancient Woodland. Available from:

http://www.naturalengland.org.uk/regions/south_east/ourwork/standingadvice/ancientwoodland/default.aspx ¹⁹ Environment Agency (2007). Pollution Prevention Guidelines Works and Maintenance In or Near Water: PPG5. Available from: http://www.environment-agency.gov.uk/netregs/links/107968.aspx

potential to impact watercourses or groundwater may require consent under the Water Resources Act 1991.

SPECIES PROTECTION

Legally Protected Species

The species listed in the following subsections are protected by law in England. It is essential to determine the presence or likely absence of legally protected species and the extent to which they may be affected by proposed development. This can best be achieved by undertaking surveys early in the planning process. Mitigation measures are required to minimise disturbance to protected species and may necessitate a licence. Natural England offers further detailed advice which can be applied to planning applications that affect protected species²⁰.

Mammals

All wild mammals are protected against cruelty under the Wild Mammals (Protection) Act 1996, which makes it an offence to mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.

The following species of mammal are protected further by law in England:

Dormouse

The Dormouse *Muscardinus avellanarius* is a Species of Principal Importance in England. It is legally protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and is afforded significant further protection as a European Protected Species under the Habitats Regulations 2010 (as amended). Collectively, this legislation makes it an offence to:

- Intentionally or deliberately kill, injure or capture Dormice;
- Intentionally, deliberately or recklessly disturb Dormice in such a way as to be likely to significantly affect the ability of any significant group of Dormice to survive, breed, or rear or nurture their young or the local distribution of or abundance of the species;
- Intentionally or recklessly damage, destroy or obstruct access to places used by Dormice for shelter or protection (whether occupied or not) or intentionally or recklessly disturb a Dormouse whilst it is occupying such a place;
- Damage or destroy a breeding site or resting place of a Dormouse;
- Possess or transport a Dormouse (or any part thereof) unless under licence; and
- Sell or exchange Dormice.

Development proposals affecting the Dormouse require a European Protected Species licence from Natural England.

²⁰ Natural England. 2011. *Standing Advice for Protected Species*. Available from:

http://www.naturalengland.org.uk/ourwork/planningtransportlocalgov/spatialplanning/standingadvice/default.as px

Badger

The Protection of Badgers Act 1992 offers considerable protection to both badgers and badger setts. This legislation was enacted to protect the Badger *Meles meles* against baiting and not as a means of species recovery for it is common in England. It is an offence to cruelly treat, kill or take Badgers, but it is also illegal to intentionally or recklessly damage or disturb a badger sett whilst it indicates signs of current use by a Badger.

Natural England has issued guidance to help developers and their proponents avoid sett disturbance and to identify setts that are in current use²¹. It is important to maintain adequate foraging territory in development proposals affecting badgers as the destruction or severance of large areas of foraging territory could also be taken to include habitat loss. Licences to disturb Badgers and their setts in respect of development may be issued by Natural England provided provisions are made to minimise disturbance.

Bats

There are 18 species of bat in the UK, seven of which are Species of Principal Importance in England. All bats and bat roosts are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Bats are also a European Protected Species protected under the Habitat Regulations 2010 (as amended). It is an offence to:

- Intentionally or deliberately kill, injure or capture bats;
- Intentionally, deliberately or recklessly disturb bats in such a way as to be likely to significantly affect the ability of any significant group of bats to survive, breed, or rear or nurture their young or the local distribution of or abundance of a species of bat;
- Intentionally, or recklessly damage, destroy or obstruct any place used for shelter or protection (i.e. bat roosts) or intentionally or recklessly disturb a bat whilst it is occupying such a place;
- Damage or destroy a breeding site or resting place of a bat; and
- Possess, sell or transport a bat, or anything derived from it.

Development proposals affecting bats or their roosts require a European Protected Species licence from Natural England.

<u>Birds</u>

49 species of bird are listed as Species of Principal Importance in England. All birds are protected under the Wildlife and Countryside Act 1981 (as amended), making it an offence, with certain exceptions (e.g. game birds), to intentionally kill, injure or take any wild bird and to take, damage or destroy their nests or eggs.

http://www.naturalengland.org.uk/Images/WMLG16_tcm6-11814.pdf

²¹ Natural England (2009). Protection of Badgers Act 1992 (as amended) Interpretation of 'Disturbance' in relation to badgers occupying a sett. Available from:

Natural England (2009). Guidance on 'Current Use' in the definition of a Badger Sett. Available from: http://www.naturalengland.org.uk/Images/WMLG17_tcm6-11815.pdf

Schedule 1 of the Wildlife and Countryside Act 1981 affords extra protection for a number of species and applies harsher penalties for offences. Any intentional or reckless disturbance of a Schedule 1 bird, whilst it is nesting or rearing dependant young, constitutes an offence.

Reptiles

All four of the widespread British species of reptile, including the Common Lizard *Lacerta vivipara*, Slow-Worm *Anguis fragilis*, Grass Snake *Natrix natrix* and Adder *Vipera berus*, are Species of Principal Importance in England. They are protected under Schedule 5 (Sections 9.1, 9.5a, 9.5b) of the Wildlife & Countryside Act 1981 (as amended) from intentional killing, injury and trade. The habitat of the four widespread reptiles is not legally protected; however the replacement of habitat lost through development may be required through the planning system. Mitigation for these species is not subject to licensing by Natural England but should nonetheless be planned to minimise disturbance.

The Smooth Snake *Coronella austriaca* and the Sand Lizard *Lacerta agilis* are the rarest reptile species in Britain. In addition to the protection that is afforded to the widespread species of reptile listed above, these species are protected further under Schedule 5 (Sections 9.4b and 9.4c) of the Wildlife and Countryside Act 1981 (as amended). They are also European Protected Species protected under the Habitat Regulations 2010 (as amended). This legislation makes it an offence to:

- Intentionally or deliberately kill, injure or capture Sand Lizards or Smooth Snakes;
- Intentionally, deliberately or recklessly disturb Sand Lizards or Smooth Snakes in such a way as to be likely to significantly affect the ability of any significant group of Sand Lizards or Smooth Snakes to survive, breed, or rear or nurture their young or the local distribution or abundance of either species;
- Intentionally or recklessly damage, destroy or obstruct any place used by Sand Lizards or Smooth Snakes for shelter or protection, or intentionally or recklessly disturb a Sand Lizard or Smooth Snake whilst it is occupying such a place;
- Damage or destroy a breeding site or resting place of a Sand Lizard or Smooth Snake;
- Keep, sell, or exchange Sand Lizards or Smooth Snakes or their eggs;
- Deliberately take or destroy their eggs.

Development proposals affecting Smooth Snake or Sand Lizard require a European Protected Species licence from Natural England.

Great Crested Newt

The Great Crested Newt *Triturus cristatus* is a Species of Principal Importance in England. It is legally protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and is afforded significant further protection as a European Protected Species under the Habitats Regulations 2010 (as amended). Collectively, this legislation makes it an offence to:

• Intentionally or deliberately kill, injure or capture Great Crested Newts;

- Intentionally, deliberately or recklessly disturb Great Crested Newts in such a way as to be likely to significantly affect the ability of any significant group of Newts to survive, breed, or rear or nurture their young or the local distribution of or abundance the species;
- Intentionally or recklessly damage, destroy or obstruct any place used by Great Crested Newts for shelter or protection, or intentionally or recklessly disturb a Great Crested Newt whilst it is occupying such a place;
- Damage or destroy a breeding site or resting place of a Great Crested Newt; and
- Possess, sell or transport a Great Crested Newt, or anything derived from it.

Development proposals affecting the Great Crested Newt require a European Protected Species licence from Natural England.

Licences for Development

Licences are required to permit activities prohibited under wildlife legislation, namely the disturbance or capture of protected species or damage to their habitats. Natural England is the licensing authority in England. Licences are only issued for certain purposes, which are set out in the law, and only where there is a valid justification. The licences most relevant to development scenarios are discussed below.

Conservation Licences

In the context of development, conservation licences are normally only relevant to mitigation involving the capture of Water Voles *Arvicola amphibius* or White-Clawed Crayfish *Austropotamobius pallipes*. Conservation licences are granted to permit the trapping and translocation of these species on the condition that the development activity is properly planned and executed and thereby contributes to the conservation of the population of the species.

Badger Licences

Licences to disturb Badgers and their setts in respect of development may be issued by Natural England provided provisions are made to minimise disturbance.

European Protected Species Licences

A European Protected Species Licence is required from Natural England to undertake any development that is reasonably likely to result in an offence in respect of a European Protected Species protected under Schedule 2 of the Habitat Regulations 2010 (as amended); including *inter alia* all species of bats, Dormouse, Great Crested Newt and Otter. Natural England must be satisfied that the following three tests are satisfied before it will issue a licence covering a European Protected Species:

- 1. The proposal is necessary to preserve public health or public safety, or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment;
- 2. There is no satisfactory alternative; and

3. The proposal will have no detrimental effect to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.

Species of Principal Importance in England

943 species have been identified as being of Principal Importance in England for the conservation of biodiversity under Section 41 (S41) of the NERC Act 2006. This list of species includes species found in England which have been identified as requiring action under the now superseded UK Biodiversity Action Plan 2007 (plus the Hen Harrier²²). While these species may not be legally protected, there is a clear responsibility on planning authorities to further their conservation. These species can be a material consideration in development control decisions and so developers are advised to take reasonable measures to avoid or mitigate impacts to prevent the net loss of these species and habitats and to enhance them where possible. Additional guidance to developers is typically provided in level planning policies.

Invasive Non-Native Species

There are a number of species not ordinarily resident to the UK. Those which pose a significant threat to our ecology and economy are listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). For an offence to be committed, a species must be released or allowed to escape into the wild. For example, if a plant listed on Schedule 9 is not adequately controlled by a land owner, once they are aware that it is present, and the species is allowed to spread into adjoining areas, then this could constitute an offence.

²² The Hen Harrier has also been included on the List because without continued conservation action it is unlikely that the Hen Harrier population will increase from its current very low levels in England.

This ecological appraisal has been completed following guidance in The (now Chartered) Institute of Ecology and Environmental Management (CIEEM) *Guidelines for the Ecological Impact Assessment in the United Kingdom* (26 June 2006).

DESK STUDY METHODOLOGY

A desk study was carried out in order to gather and refer to existing biodiversity and contextual information with respect to the Zone of Influence and the wider area. This involved interrogation of internet resources, including the Multi-agency Geographic Information for the Countryside (MAGIC), aerial photos, current Ordnance Survey maps and the Old Maps online database. Reference was also made to local planning policies, strategies and initiatives relating to biodiversity as detailed in **Appendix 1**.

Greenspace Information for Greater London was commissioned to provide information from their database to provide existing data records with full coverage of the site. Statutory site designations for nature conservation and protected species records were identified within a 5km radius, all other records were obtained for 2km radius from the centre of the site.

FIELDWORK METHODOLOGY

The field survey was completed by Daniel O'Sullivan on 26 May 2015. The entire site and immediate surrounds (where access was permitted) was walked, recording habitats and features of potential value to wildlife and any evidence of, or potential for, protected or notable species or habitats, in accordance with the methods described below.

Land Use, Habitat Types, Vegetation Communities and Flora

Within the study area the land use, habitat types and landscape features (such as hedgerows and veteran trees) were described and mapped. For each main habitat type the dominant vegetation communities were recorded, along with any notable or indicator plant species, (including Japanese Knotweed where present). A preliminary evaluation of the structure, quality and likely management of each habitat or feature was also carried out.

The survey method used to record this information was based on Phase 1 Habitat Survey methodology (JNCC 2010).

Badgers

Consideration was given to the presence of habitat potentially suitable for supporting Badgers, including woodland and grassland. Potential evidence of the presence of Badgers was looked out for and noted, including earthworks that might be Badger setts, and signs such as dung pits, mammal pathways through ground vegetation and under fences, and hairs on fences.

Bats

Bats use buildings and trees for roosting and breeding and, where present, a preliminary assessment of the potential for these features to support bats was undertaken during the survey in accordance with categories set out within the Bat Conservation Trust's Bat Surveys Good Practice Guidelines (2012). Potential may include gaps beneath roof or hanging tiles, in soffits, or beneath the end of ridge tiles, but also under the edge of felt on flat roofs. In trees potential roosting features include woodpecker holes, splits in branches and peeling bark.

Preliminary evidence was obtained through noting any staining around potential roost entrances, and looking for bat droppings, for example on window sills. A preliminary evaluation was also undertaken of potential bat foraging habitat in the area, including woodland, pasture, hedges and watercourses.

Dormouse

The type and quality of habitat with the potential to be suitable for supporting Dormice, such as woodland and hedgerows, was considered during the survey. In particular the presence of oak, hazel and berry-bearing shrubs was noted, and the connectivity of habitat recorded.

Water Voles

The presence and quality of watercourses with the potential to support Water Voles was recorded during the survey. Potential evidence of Water Voles, including burrows in the tops and vertical face of riverbanks, and feeding evidence was recorded where appropriate.

Otter

Where watercourses are present, a preliminary evaluation of the quality of the riparian habitat for potentially supporting Otters was made. A preliminary search was made for signs of Otters, including spraints which are often left in prominent places on river banks, such as logs and bare patches of ground.

Birds

Any birds seen whilst carrying out the survey were recorded, and the type and quality of habitats available for birds was considered, including vegetation suitable for nesting, and habitat with the potential to support valued species, including breeding and wintering birds.

Amphibians

Consideration was given to the presence of habitat potentially suitable for supporting amphibians, including water bodies (ponds, ditches), woodland, scrub and rough grassland, and features such as log piles that might provide hibernation areas. Where appropriate, effort to gather direct evidence of amphibians was undertaken by making a preliminary search for eggs by examining vegetation within reach of the margins of water bodies, and for resting animals on land by looking under potential refuges, such as stones, wood and rubbish near to water bodies.

Reptiles

The presence and quality of habitat considered potentially suitable for supporting reptiles was recorded. This included areas providing basking and foraging areas, hibernation and breeding sites, such as rough grassland and scrub, banks, burrows, rubble piles, compost heaps, hedgebanks and water bodies.

Invertebrates

Readily identifiable invertebrates seen during the survey were recorded, and habitats and features likely to support noteworthy groups and species were noted, for example herb-rich grasslands, areas of bare ground and deadwood habitats, including woodland and veteran trees.



Photograph 1. Example of amenity grassland on site with scattered trees



Photograph 2. Example of building on site



Photograph 3. Raised ridge tile with bat roost potential



Photograph 4. Tall ruderal habitat



Photograph 5. Vegetable patch

Mixed Scattered Trees

Common name	Scientific name	Abundance (DAFOR)
Maple Species	Acer spp.	F
Ash	Fraxinus excelsior	0
Bird Cherry	Prunus padus	0
Elder	Sambucus nigra	0
Grey Poplar	Populus x canescens	0
Horse Chestnut	Aesculus hippocastanum	0
Norway Maple	Acer platanoides	0
Sycamore	Acer pseudoplatanus	0
Apple	Malus domestica	R
Field Maple	Acer campestre	R
Hawthorn	Crataegus monogyna	R
Holly	llex aquifolium	R
Larch Species	Larix spp.	R
Lawson's Cypress	Chamaecyparis lawsoniana	R
Pedunculate Oak	Quercus robur	R
Silver Birch	Betula pendula	R

Tall Ruderal

Common name	Scientific name	Abundance (DAFOR)
Cow Parsley	Anthriscus sylvestris	А
Garlic Mustard	Alliaria petiolate	0
Hawthorn	Crataegus monogyna	R
White Dead-nettle	Lamium album	R

Amenity Grassland

Common name	Scientific name	Abundance (DAFOR)
Perennial Rye-grass	Lolium perenne	D
Red Fescue	Festuca rubra	D
Creeping Buttercup	Ranunculus repens	А
Daisy	Bellis perennis	А
White Clover	Trifolium repens	А
Dandelion	Taraxacum agg	F
Parsley-piert	Aphanes arvensis	F
Ribwort Plantain	Plantago lanceolata	F
Bramble	Rubus fruticosus	R
Bristly Oxtongue	Picris echioides	R
Cotoneaster Species	Cotoneaster spp.	R
Greater Plantain	Plantago major	R

Introduced Shrub

Common name	Scientific name	Abundance (DAFOR)
Cherry Laurel	Prunus laurocerasus	0
Norway Maple	Acer platanoides	R
Spotted Laurel	Aucuba japonica	R