



briefing note

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Version 2: September 2015

This Briefing Note was produced on behalf of Willmott Dixon by WD Re-Thinking Ltd

Ecology Surveys & Calendars



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Introduction

Introduction

Many plants and animals in England and Wales are protected by law. To determine what species may be present on site the relevant ecological surveys must be completed. The following pages contain an overview of the types of survey that are commonly completed, and timelines for when surveys and subsequent mitigation can take place.

Why carry out an Ecology Survey: Legal Requirements & Identification of Project Risks

Legislation relating to the management and control of various species covers both plant and animal species. In the UK the main pieces of legislation are The Wildlife and Countryside Act 1981 and the Conservation (Natural Habitats etc.) Regulations 1994 which give protection to some of the most threatened species in England. Under these statutes it is an offence to:

- Deliberately capture, injure or kill such animals or to deliberately take or destroy their eggs.
- Damage or destroy a breeding or resting place of such an animal.
- Deliberately disturb such animals in a way as to be likely to significantly affect (a) the ability of any significant groups of animals of that species to survive, breed, or rear or nurture their young, or (b) the local distribution of abundance of that species.
- Deliberately pick, collect, cut, uproot or destroy a wild plant of a European protected species. It is also an offence for any purpose to possess, sell or exchange such a plant.
- Have in one's possession or control, any live or dead European protected species.

Carrying out an ecology survey will identify if any such species are present on site and recommend actions to be taken to protect these species and enable construction to take place.

Advice can then be sought from specialist consultants, The Wildlife Trust or the Countryside Council for Wales on mitigation measures where protected species are present. This may require applying for a specialist licence, protecting or relocating protected species. Early advice can prevent costly delays at a later date.

Why carry out an Ecology Survey: BREEAM/Code for Sustainable Homes Assessments

BREEAM assessments require a suitably qualified ecologist to produce an ecology report as evidence for several of the credits within the 'Land Use & Ecology' chapter. This section covers issues such as ecological value of the site and protection of ecological features (LE3), mitigating ecological impact (LE4), enhancing site ecology (LE5), and long term impact on biodiversity (LE6). The relevant BREEAM assessor manual should be consulted for full details of the individual BREEAM credit compliance requirements.

The Wildlife Trusts

In April 2014, Willmott Dixon signed a Memorandum of Understanding with the Royal Society of The Wildlife Trusts to work together and Willmott Dixon has committed to using the ecological services provided by The Wildlife Trusts ecological consultancies.



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Types of Ecology Surveys

| Survey Technique | Overview |
|---|--|
| Habitat | |
| Code for Sustainable Homes/BREEAM Ecological Assessment | The most basic habitat assessment of a site; basic protected species interest assessment. |
| Phase 1 Survey | Broad habitat assessment and mapping, determination of protected species interest, ecological desk study data. |
| National Vegetation Classification (NVC) | Detailed botanical investigation of selected habitat composition using quadrats. |
| Arboricultural Survey | Assessment of the condition of trees at a site and establishment of protection options. |
| Species | |
| Terrestrial invertebrates | Determination of important terrestrial invertebrate interest at a site using a range of techniques and lab ID. |
| Aquatic invertebrates | Determination of biological water quality if site is adjacent to stream or river habitats, or contains ponds. |
| White clawed crayfish survey | Survey for crayfish presence/absence if a site borders a suitable watercourse. |
| Badger survey | Determination if badger setts are located on site or within 30m of a site. |
| Otter survey | For sites which border major watercourses. |
| Water vole survey | For sites where there is a watercourse present or where there are a network of ponds and wet ditches which are linked. |
| Bat survey | Any mature trees and buildings may provide roost features and should be assessed. This involves daytime and nocturnal inspections. |
| Dormouse survey | For sites which border large areas of woodland, scrub or have ancient/mature hedgerows. |
| Breeding birds survey | Determination of nesting activity at large sites and presence of Schedule 1 bird species (offence to disturb). |
| Great crested newt survey | For sites where ponds are present, or where there are suitable ponds within a 500m radius of the site. |
| Reptile survey | Sites where there is suitable habitat and connectivity e.g. railway lines, streams, allotments, grassland and scrub. |
| Lower plant survey | Specialist survey for mosses, bryophytes, lichens and fungi. |
| <p><i>*Other ecological surveys such as red squirrel surveys and natterjack toad surveys can be undertaken but are highly specialised and confined to limited locations across the country.</i></p> | |



Ecology Survey Calendar

| Species | January | February | March | April | May | June | July | August | September | October | November | December |
|------------------------------|--|-------------------------------|--|---|--|------|--|--------|-------------------|---|---------------------------|--------------|
| Badgers | Limited sett/bait surveys | Bait marking and sett surveys | | | Limited bait marking and sett surveys | | | | Sett surveys | | Limited sett/bait surveys | |
| Bats | Inspection of hibernation roosts (difficult) | | | Limited activity | Summer roost emergence surveys and activity surveys (internal inspection of roof-spaces possible throughout April-Oct) | | | | Limited activity | Inspections of hibernation roosts (difficult) | | |
| Birds | Winter species | | Breeding birds/migrant species | | Breeding birds | | Low activity | | Migrant species | | Winter species | |
| Dormice | Gnawed hazel nut search | | | Nest tube survey from April to November. Gnawed hazel nut search (best from Sept-Dec) | | | | | | | | |
| Great Crested Newts | Newts hibernating | | Pond surveys for adults/terrestrial survey. Egg surveys April-mid June. Larvae surveys from mid-May. | | | | Habitat and larvae survey | | Habitat survey | | Newts hibernating | |
| Habitat/Vegetation | Phase 1 only | | | Phase 1 and NVC | | | | | | Phase 1 only | | |
| Otters | Limited by vegetation cover and weather conditions rather than seasons | | | | | | | | | | | |
| Reptiles | Reptiles hibernating | | Peek survey months are April and May | | | | Reduced basking time lowers effectiveness of refugia surveys | | Peak survey month | Limited activity | Reptiles hibernating | |
| Water Voles | Low activity | Initial habitat survey | Habitat and field signs/activity surveys. May be limited by vegetation cover and weather. | | | | | | | | Initial habitat survey | Low activity |
| White-clawed crayfish | Habitat suitability assessment only | | | | | | Manual search, torch light counts and trapping | | | Habitat suitability assessment only | | |

Note: Planning authorities may have differing dates when surveys can be completed.

- Recommended period for survey
- Sub-optimal period for survey
- Surveys not possible



Ecology Mitigation Timeline

| Species | January | February | March | April | May | June | July | August | September | October | November | December |
|------------------------------|---|--|--------------------------------------|-------------------------------|---|---|-----------------|--------------------------------------|-----------------------|-----------------------------------|------------------------------|----------|
| Badgers | Construction of artificial setts only (no disturbance of existing setts) | | | | | | | Exclusion from setts and destruction | | | No disturbance (see January) | |
| Bats | Maternity roost works | Hibernation and maternity roost works | | Hibernation roost works | | | | | Maternity roost works | | | |
| Birds | Clearance works | Nesting season (avoid ALL clearance works) | | | | | Clearance works | | | | | |
| Dormice | No clearance works as hibernating | | Clearance, translocation and release | | No clearance works as may separate females from young | | | Clearance, translocation and release | | No clearance works as hibernating | | |
| Great Crested Newts | Pond management only | Both terrestrial and aquatic trapping possible | | | | Terrestrial trapping only | | | | Pond management only | | |
| Habitat/Vegetation | Planting and translocation | No mitigation for most species | | | | | | | | Planting and translocation | | |
| Otters | No seasonal constraints, however restrictions are likely during breeding season | | | | | | | | | | | |
| Reptiles | Clearance of scrub | Capture and translocation programmes and scrub clearance | | | | Weather dependant but likely to be sub-optimal due to temperature | | Capture and translocation | Clearance of scrub | | | |
| Water Voles | Avoid works in habitat | Trapping and exclusion | | Avoid works (breeding season) | | | | Trapping and exclusion | | Avoid works in habitat | | |
| White-clawed crayfish | Avoid disturbance | | | | | | | Exclusions undertaken | | Avoid disturbance | | |

Note: Planning authorities may have differing dates when mitigation can be completed.

- Recommended period for mitigation
- Sub-optimal period for mitigation
- Mitigation not possible

Endangered Species

Please refer to these webpages for information on endangered species

<https://www.gov.uk/protected-species-and-sites-how-to-review-planning-proposals>

http://jncc.defra.gov.uk/PDF/UKBAP_Species-HabitatsReview-2007.pdf

References and further information

Natural England webpage on advice and legislation relating to the management and control of various species:

<http://www.naturalengland.org.uk/ourwork/regulation/wildlife/species/default.aspx>

The Countryside Council for Wales: <http://www.ccw.gov.uk/>

The Wildlife Trusts website: <http://www.wildlifetrusts.org/>

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