

Leicester, Leicestershire and Rutland

Barn Owl Survey Protocol

Leicestershire County Council Planning Ecology Service

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Barn owl surveys of buildings and structures

The barn owl is a relatively scarce breeding species for which there is conservation concern in the UK. Hence, barn owls are protected under the Wildlife and Countryside Act 1981 (as amended) and the Conservation (Natural Habitats &c.) Regulations 1994, making it an offence to intentionally kill, injure or take this species, or take, damage or destroy its nest, eggs or young. Barn owls also have additional protection as they are listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) making it unlawful to intentionally or recklessly disturb these birds whilst they are building a nest or are in, on or near a nest containing eggs or young or to disturb their dependent young. Barn owls do not 'build a nest' in the true sense but this activity is replaced by the shredding of pellets on which eggs are eventually laid. Failure to comply with this may result in prosecution, and anyone found guilty of an offence is liable to a fine of up to £5,000 for each nest, egg or chick, and/or imprisonment for a term not exceeding six months.

Barn owls frequently nest in buildings and may be affected by development. The planning authority is required by law to check that your development does not breach legislation regarding barn owls. This document aims to prepare developers for when a barn owl survey is needed and inform ecological consultants of the level of survey expected. It is not intended as survey guidelines (see Shawyer 2011).

If your proposed development falls into the categories overleaf, a thorough barn owl survey of your building by a suitably qualified ecologist must be carried out BEFORE your application can be determined. This applies to outline planning applications and full planning applications.

Please note that a Barn Owl Survey cannot be covered by a planning condition. This is in accordance with paragraph 99 of ODPM Circular 06/2005: *Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System.*

When is a barn owl survey of a building or structure needed to support a planning application?

The following criteria are considered by the planning authority and their ecology advisors when deciding if a barn owl survey is needed. A barn owl survey is likely to be required when the proposed development falls into all three categories in the table below.

Table 1: Barn Owl Survey Scoping Table

1. Location

Developments located in non-urban areas and below 250m above sea level.

2. Type of site/structure

Any building or structure with an existing record for barn owl held by the Planning Authority, the Leicestershire and Rutland Environmental Records Centre, Natural England, a licensed barn owl worker or ecologist.

Old agricultural buildings such as old barns, cattle sheds, dovecotes, disused farmhouses. Modern agricultural buildings (e.g. open steel frame barns of sheet material construction) are less likely to offer nesting opportunities to barn owl, unless there is a features such as an attic, similar enclosed space or nest box present.

Disused or derelict houses, cottages, with or without open chimneys and ancient/historic buildings.

All buildings such as aircraft hangers, old warehouses, military installations and commercial buildings which are disused or used infrequently.

Churches in rural or semi-rural locations.

Bridges, viaducts and aqueducts.

Quarries/cliff faces containing crevices or fissures.

Open land containing large mature trees, present in field or woodland margins, hedgerows or contained within fields. *

3. Type of development

Any type of development or change of use which affects a site/structure listed above, specific examples include: **

- Demolition
- Renovation
- Conversion
- Extension
- Flood lighting or spot lighting (temporary or permanent)

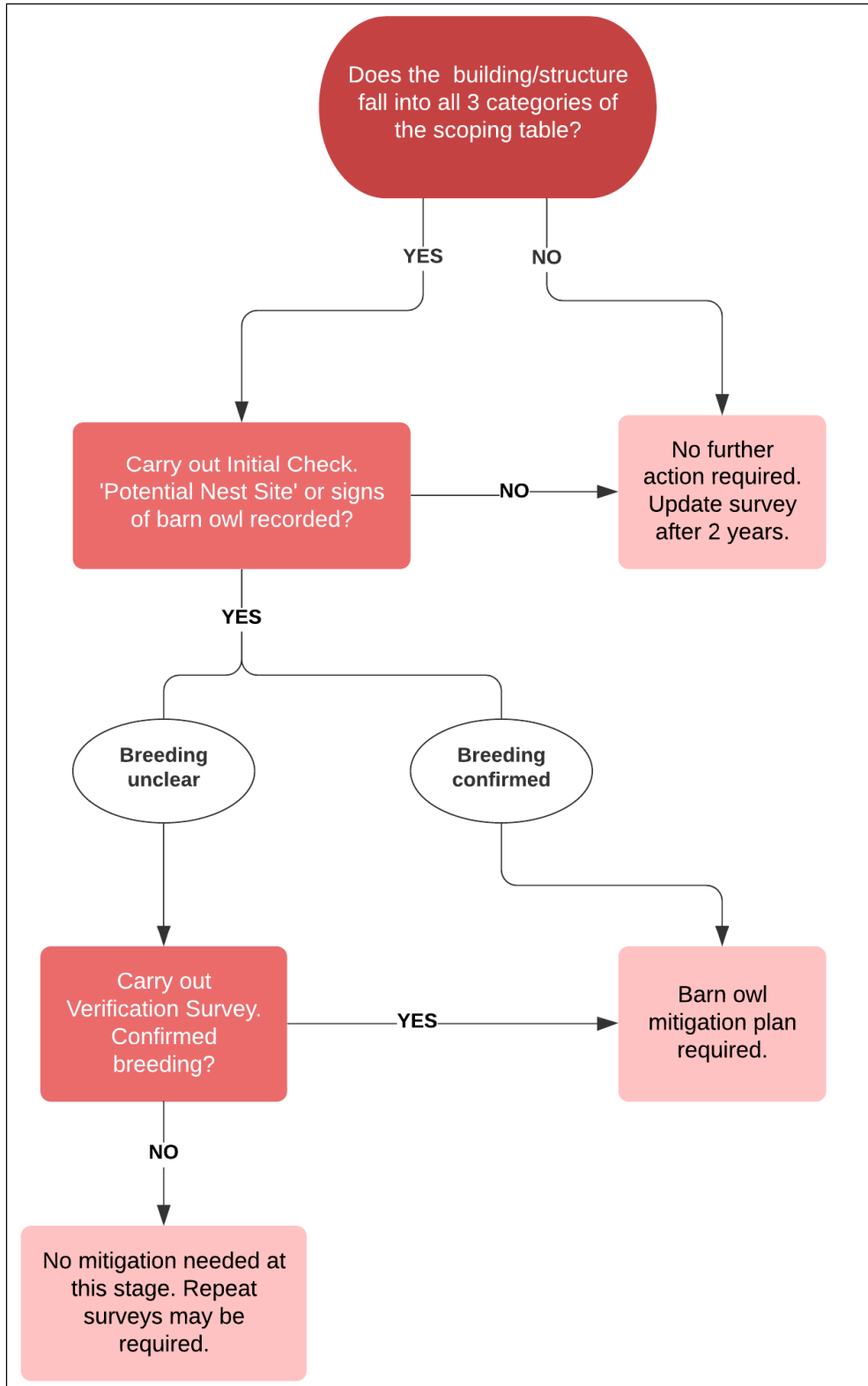
** Note that surveys of trees and of barn owl foraging habitat are not covered by this protocol. Please refer to 'Barn Owl Tyto alba Survey Methodology and Techniques for use in Ecological Assessment' (Shawyer 2011). These types of surveys should be included as standard practice in Preliminary Ecological Appraisals and similar scoping surveys of larger sites.*

*** Surveys for transport schemes (road, rail and air), wind turbines/farms and overhead power lines are also likely to require extensive barn owl surveys and are not covered here (see Shawyer 2011).*

Barn owl action flowchart

The flowchart below offers a summary of what information and actions may be required regarding barn owl in support of a planning application. This is for guidance only and we reserve the right to ask for a barn owl survey and/or mitigation if we consider this is required. The flowchart is summarised on the following page for users of screen reader technology.

Figure 1: Barn owl action flowchart



Text summary of 'barn owl action flowchart':

If the building does not fall into all 3 categories of the scoping table, then no further action is required at this stage. An update survey may be required after 2 years.

If the building does fall into all 3 categories of the scoping table, then an initial barn owl survey is required. If no 'potential nest sites' or signs of barn owl are recorded, then no further action is required. An update survey may be required after 2 years.

If 'potential nest sites' or signs of barn owl are recorded, and barn owl breeding is confirmed, then a barn owl mitigation plan is required.

If 'potential nest sites' or signs of barn owl are recorded, but barn owl breeding is unclear, then a barn owl verification survey is required. If breeding is confirmed, then a barn owl mitigation plan is required. If breeding is not occurring, then no mitigation is needed at this stage. Repeat surveys may be required.

What does a barn owl survey of a building or structure involve?

1. If a barn owl survey is required – Initial Check

- The first step is a thorough visual check. This is a thorough internal and external inspection of the building to look for suitable cavities/chambers for breeding barn owls, or 'Potential Nest Sites'. It may be done as part of a broader ecological survey e.g. Extended Phase 1 Habitat Survey. Evidence of roosting barn owls should also be searched for – such as droppings, pellets and feathers (also known as 'field signs').
 - Note: In buildings, whole pellets and droppings are often found in the vicinity of nest sites, because the adult male commonly roosts nearby in the same building. However, these field signs are rarely deposited beneath the nest chambers. This means that breeding sites can be overlooked by fieldworkers if a thorough survey is not done.
- This initial visual check can be done at any time of the year.
- It is important that the surveyor has access to all parts of the building affected by the proposed development.
- The initial ground-level check must be carried out by a competent and skilled surveyor who has a good working knowledge of this species and of its ecology. Where close examination of a Potential Nest Site is subsequently required, the surveyor must possess a licence permitting them to disturb nesting barn owls (issued by Natural England). If an unlicensed surveyor encounters breeding barn owls at a previously unknown location, then that person must withdraw immediately.
- In line with best practice, any signs of other species of breeding bird, such as swallows, should be recorded during the survey and reported along with the survey results.
- At this stage, the surveyor may be able to confirm presence of an Occupied Breeding Site – a site where breeding is taking place (or has recently) – from the ground using binoculars. Alternatively, they may only be able to identify a Potential Nest Site and not confirm breeding. Or, they may be able to rule out breeding barn owls due to a lack of Potential Nest Sites or field signs. The next stage depends on the findings of this initial check.

2. A. If *no* Potential Nest Sites or signs of barn owl presence are identified – No Further Action

- If no Potential Nest Sites or signs of barn owl presence are identified during the initial survey, then no further survey work for barn owl is required.
- The visual check survey report must be submitted to the planning authority BEFORE your planning application can be determined.
- Surveyors will need to demonstrate that thorough checks have been carried out, e.g. detailed descriptions and photographs. The report should include survey methodology, findings and conclusions.

2. B. If Potential Nest Sites or signs of barn owl presence are identified – Verification Survey

- The surveyor may be unable to confirm breeding after a ground-level check but considers that the building supports a Potential Nest Site and/or evidence of barn owls. Often this will be because the surveyor cannot see all the way into the potential nesting feature or access the whole building.

- In these cases, a further verification survey may be required to confirm whether an Occupied Breeding Site is present before the application can be determined.
- This consists of a close examination of the Potential Nest Site, e.g. using a ladder, and includes searching for the presence of adult barn owls, moulted feathers, pellets, eggs, eggshells, chicks or down.
- This type of close examination **must** be conducted with the necessary disturbance licence from Natural England, with any disturbance kept to a minimum. It should be timed during mid-June, July and early August, as this is the time when nests can be detected most easily, and the risk of nest abandonment is lowest.
- The need for these surveys may delay consideration of your application as they cannot be the subject of a planning condition.
- If the verification survey is inconclusive, e.g. because buildings have been considered unsafe to access, then observational surveys to detect the arrival of adults with food and thereby confirm or deny breeding may be conducted at dawn or dusk. Fledglings will also emit food-begging calls at this time which are often audible from up to 100m away.
- If the verification survey did not identify the presence of breeding barn owls even though there is evidence of past breeding in the area, then a repeat survey before the commencement of any works is recommended.
- The final report should include survey methodology, findings and conclusions. Because of the specially protected nature of this species, breeding sites which have been provided as part of a desk study or located during the field survey should be detailed in the report at the four-figure grid level (accurate to 1 km). The survey report must be submitted to the planning authority BEFORE your planning application can be determined.

3. If barn owls are confirmed as breeding - Mitigation

- The survey(s) will inform a barn owl mitigation plan. The survey report and mitigation plan must be submitted to the planning authority BEFORE your planning application can be determined.
- The barn owl mitigation plan must be drawn up by a suitably experienced ecologist, and the applicant must agree to follow it.
- The mitigation plan will summarise the actions that will reduce the impact of your development on barn owls. This may include: provision of replacement nest sites, creation/enhancement of foraging habitat, timings of works to avoid the breeding season, appropriate buffer zones, and working methods to reduce risk of disturbance. This may require changes to the design of your development.
 - Note: new nest boxes should not be installed within 1km of a major road, to reduce likelihood of barn owl road casualties.
- See Appendix III of Shawyer (2011) for guidance on barn owl mitigation.
- Details of monitoring during development and post-development may also be required.
- The barn owl mitigation plan will be referred to in a planning condition applied to your planning permission. Failure to follow the barn owl mitigation plan or a planning condition may result in enforcement action against you.

- Generic or 'worst case scenario' mitigation plans submitted instead of a survey report are not acceptable.

Figure 2: Image showing a barn owl nest box installed within a building.



Image from
www.barnowltrust.org.uk

How long is a barn owl survey valid for?

A barn owl survey that finds no Potential Nest Sites or evidence of barn owl carried out up to 2 years previously are valid in support of a planning application and will last for the duration of the planning permission. As an initial check can be done at any time of year, a barn owl survey can be updated at any time of year.

If during the initial check, a Potential Nest Site was identified but this was not found to be an Occupied Breeding Site, it is recommended that a repeat survey of all Potential Nest Sites is carried out before the commencement of any works. A repeat survey must be conducted if a period of nine months or more has elapsed between the initial survey being conducted and clearance/development works starting at the site.

Changed circumstances could require changes to mitigation. If the barn owl mitigation plan is subject to a planning condition, changes must be approved in writing by the Planning Authority, backed up with a supporting survey report.

If the type or scale of the proposed development changes, the mitigation needed might also change, therefore the barn owl mitigation plan may need to be revised and re-submitted.

Enhancements for barn owls

Barn owl is a Leicester, Leicestershire and Rutland Biodiversity Action Plan priority species. The action plan objectives for this species are to:

- Increase the number of breeding barn owls in Leicestershire and Rutland
- Encourage the provision of artificial nesting sites

Throughout the UK in the 19th Century barn owl was relatively common in lowland agricultural habitats. However since the 1940s this species has been in serious decline. By 1997 there were fewer than 10 pairs in Leicestershire and Rutland. Since that time numbers have increased. Loss of nest and roost sites is one of the key pressures facing barn owls.

The NPPF (2021) states that opportunities to improve biodiversity in and around developments should be integrated as part of their design (paragraph 180(d)). Certain types of development offer good opportunities for providing nesting sites for barn owl, e.g. small rural developments and new agricultural barns.

Consideration must be given to the surrounding habitat. It is important that a proposed artificial barn owl nesting site is not located within 1.5 km of a main road or active railway, due to the increased risk of road deaths. In addition, barn owls are more likely to take up occupation in artificial nesting sites if there is suitable foraging habitat nearby. Barn owls can utilise a variety of different habitat types but the majority of prime foraging habitat in mainland Britain is provided by fields of rough grassland and young plantations, and in particular by rough grassland corridors along watercourses, roadsides, arable field margins, woodland edge and occasionally along wide woodland rides. Nest boxes do not need to be placed directly on patches or strips of rough grassland as the birds are perfectly capable of 'commuting' across unsuitable habitats before starting to hunt and have very large home ranges.

Siting Nest Boxes

The best place to site a barn owl box is within a suitable building. Ideal buildings for barn owl nest boxes are:

- At least 4 metres (13ft) high.
- With an opening or hole at least 3 metres (10ft) above ground level which overlooks open countryside.
- Where the nest box can be positioned 3+ metres (10+ ft) above the ground.
- Where the nest box access hole is visible to an owl from the most likely entrance point.
- Ideally within 1 km (1/2 mile) of areas or strips of rough grassland.

Barn owls can learn to tolerate noise and activity as long as they have something to hide in – such as a nest box. According to the barn owl trust website: *“Provided that the birds can remain out of sight, they seem perfectly content in sites with lots of human/agricultural activity. Some farmhouses have had barn owls nesting in the attic for many years.”*

Barn owl boxes can also be mounted on existing mature trees, or onto purpose-installed poles. Care should be taken to ensure the location is suitable, taking into consideration prevailing weather conditions. Ash trees should be avoided.

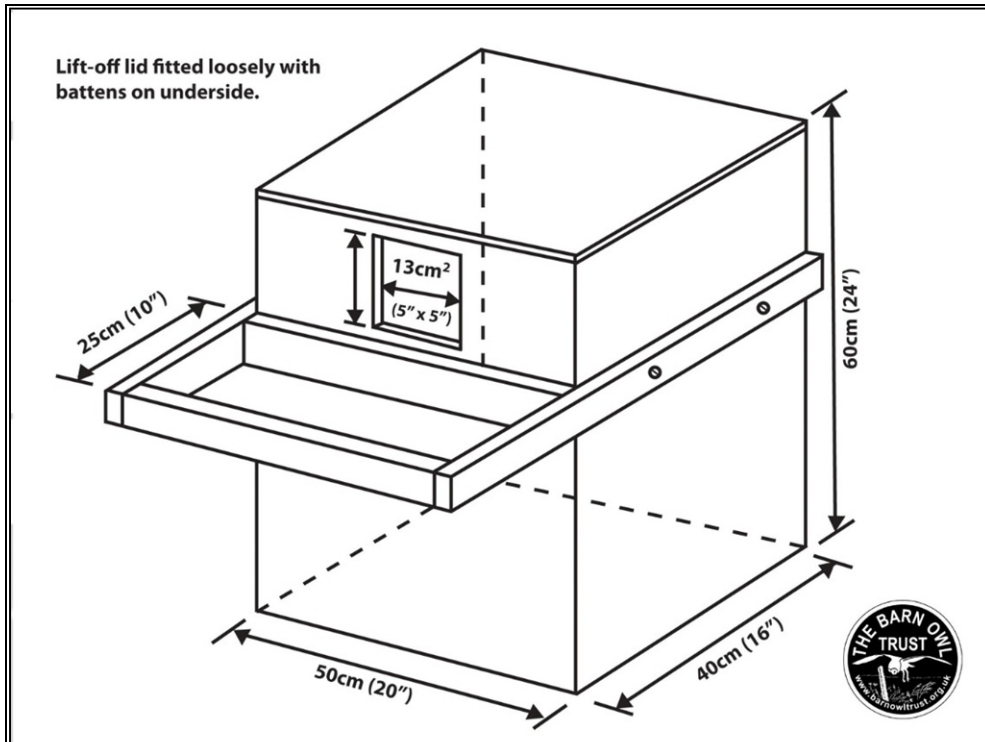
Nest Box Specification

Barn owl boxes can be bought or built with specific dimensions and materials. Figure 3 shows the minimum dimensions for an indoor barn owl box. This varies for barn owl tree and pole boxes.

Criteria for barn owl boxes can be found at the following links:

- [Indoor barn owl boxes](#)
- [Barn owl tree boxes](#)
- [Barn owl pole boxes](#)

Figure 3: Image showing barn owl nest box (indoor) minimum dimensions.



Nest Box Maintenance

- Barn owls are a Schedule 1 protected species and during the breeding season their nests can only be inspected by someone with a licence.
- It's usually best to clean out nest boxes between November and January so as not to disturb breeding barn owls (which is illegal).
- If owls are roosting in the box, it's best to wait until the weather is dry with little wind, to avoid flushing them out into bad weather. (Barn owls' feathers are not waterproof and they can get waterlogged and chilled in wind and rain.)
- Maintaining the internal depth of the nesting box reduces the chances of a nestling barn owl falling from the box and dying as a result of neglect or predation. Therefore it's important to clear it out if there's more than about 75mm of nest debris.
- If Jackdaws use the box it must be cleaned out every year (wear gloves and a dust mask).
- Boxes only used by barn owls and/or doves will need clearing out every 2 or 3 years at most (unless the owls have very large broods of young or breed more than once a year in which case they should be cleaned out every 1 or 2 years).

Bibliography

Shawyer, C. R. (2011) Barn Owl *Tyto alba* Survey Methodology and Techniques for use in Ecological Assessment: Developing Best Practice in Survey and Reporting. IEEM, Winchester.

The Barn Owl Trust website (2015) viewed 15 September 2020, barnowltrust.org.uk

Leicestershire County Council Planning Ecology Service

Room 200

County Hall

Glenfield LE3 8RA

0116 305 1087

planningecology@leics.gov.uk

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