Technical Advice Note#1

Bat Surveys:



The Bat Conservation Trust (BCT) has published new guidelines for bat surveys1, which set the standard required by Scottish Natural Heritage (SNH) in relation to development. This Technical Advice Note summarises key aspects of the new guidelines, to ensure developers understand what information must be provided to the Planning Authority (Scottish Borders Council), prior to a planning determination being made.

This is important, as, **before** considering whether or not to approve a planning application², Planning Authorities must establish whether European Protected Species (EPS) such as bats are present on development sites and what the implications of this might be. It is **not** possible for the Planning Authority to use planning conditions to set out survey requirements. Applications for planning permission may be recommended for withdrawal or refused without adequate information, including relevant surveys.

Planning Authorities require adequate survey information to determine whether bat roosts are present, likely to be affected by the development and to fully consider potential impacts on bats prior to the determination of an application³. Planning permission will not be granted without the Planning Authority having satisfied itself that the proposed development either will not impact adversely on an EPS on

the site or that, in its opinion, three tests necessary for the eventual grant of an EPS licence are likely to be satisfied4.

These three tests are:

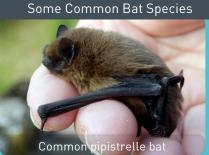
- 1: The development is in the interest of public health/ safety or other over-riding interests (e.g. social/ economic)
- 2: There is no satisfactory alternative
- 3: Actions relating to the development will not be detrimental to the maintenance of an EPS (e.g. bats) at a favourable conservation status⁵ in its natural range

This Technical Advice Note provides a summary of information on local bat species; the types of development requiring bat surveys; survey requirements, reports and species protection plans. The full BCT guidelines should be consulted for completeness and professional advice from a specialist bat surveyor sought.

1. Local Bat Species

Bats occurring in the Scottish Borders include: common and soprano pipistrelle; brown long-eared; Daubenton's and Natterer's bats and rarer species such as noctule; whiskered bat and Nathusius' pipistrelle. They make use of a wide range of buildings, structures and trees for roosting, depending on whether they are hibernating, feeding, mating, or raising young, the time of year and seasonal changes. They also use a variety of feeding and foraging habitats, (e.g. woodland, hedgerows, aquatic habitats, coppiced areas, grassland, parkland and gardens). Preferences for roost locations and habitat types also differ amongst species. Brown long-eared bats may roost in trees, voids of large, old buildings and against wooden beams in attics and farm buildings. Pipistrelle species may roost under lead flashing roof tiles in soffits and in crevices in trees or buildings.







- 1 Collins, J. (ed.) (2016) Bat Surveys for Professional ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust, London. 2 Scottish Executive Environment and Rural Affairs Department (2001). European Protected Species, Development Sites and the Planning System: Interim guidance for local authorities on licensing arrangements.

 3 Ibid. And also: Scottish Government (2014) Scottish Planning Policy 2014;
- 4 This is in accordance with The Conservation (Natural Habitats &c.) Regulations 1994 (as amended). 5 See definition in SNH (2015) Species Licensing Guidance Notes. SNH, Inverness.



2. Types of Development Requiring Bat Surveys

Development impacts on bats may include physical disturbance; injury or mortality; disturbance by noise or light; modification/ loss of roost or foraging habitats. The types of development that are likely to impact on bats and require bat surveys are summarised in the table below (for full details, refer to the new BCT quidelines6). This is not an exhaustive list. A specialist bat surveyor will apply professional judgement and consult the full BCT guidelines to decide where bat surveys are/are not appropriate.

Development likely to affect bat roosts

Conversion, alteration, demolition or removal of buildings (including dwelling houses; hotels; schools; hospitals; churches; commercial premises; derelict buildings) which are:

- agricultural buildings of traditional brick/stone construction and/or with wooden beams;
- buildings with weather boarding and/or hanging tiles;
- buildings/structures within 200m of woodland, water, parkland or gardens
- pre-1914 buildings within 400m of woodland and/or water; or with gable ends/slate roofs (regardless of location)
- Dutch barns/livestock buildings with single skin roof and board-and-gap or Yorkshire boarding, if the site is particularly suited to bats

Development affecting built structures such as bridges/ aqueducts/viaducts (especially over water or wet ground); cellars; kilns; ice-houses; military fortifications; air-raid shelters; underground ducts/structures; unused industrial chimneys (unlined and of brick/stone construction); tunnels; mines



Felling, removal or lopping (e.g. of trees over 100 years old, and mature or dead trees with holes, cracks, cavities, or which are ivy-covered)

Proposals located in/adjacent to quarries, gravel pits, natural cliff faces, or rock outcrops with crevices, caves

Development likely to affect bats' feeding/foraging habitat

Floodlighting (e.g. of churches and listed buildings; green spaces within 50m of or with connectivity to woodland/water/ field hedgerows; or any building listed under conversion, alteration, demolition or removal – see opposite column). Security lighting can also cause bats to desert roosts, e.g. when entrance points are illuminated.



Felling, removal or lopping (e.g. woodland, field hedgerows and/or lines of trees with connectivity to woodland/water bodies)



Proposals for wind farm developments of multiple/single wind turbines (depending on size and location)

Proposals affecting water bodies (in or within 200m of rivers, streams, canals, lakes, reed beds or other aquatic habitats, where bats are likely to be present)

All proposals in sites where bats are known to be present (e.g. any type of building, structure, feature or location)

3. Bat Survey Requirements

The table overleaf summarises key types of bat survey⁷. The process for bat surveys of buildings, structures and trees⁸ is iterative: each stage of survey informs the next before likely impacts on bats are assessed. **In most circumstances** the minimum requirement will be a Preliminary Roost Assessment including a proprtionate Preliminary Ecological Appraisal and presence/absence surveys. Phased or lengthy developments may require repeated surveys to ensure survey data remains valid. Surveys are generally considered invalid if more than 18 months old.

It is essential that bat surveys are undertaken by an experienced bat specialist, particularly if a survey may result in disturbance to bats, in which case the bat specialist must be licensed to carry out surveys. References and evidence of experience should be sought. Some bat specialists are also members of CIEEM (Chartered Institute of Ecology and Environmental Management) and subscribe to a professional code of conduct.

- For full details refer to Collins, J. (ed.) (2016), p.13 For full details refer to Refer to Collins, J. (ed.) (2016) Chapters 2-9 Separate guidance is available in relation to road/railway infrastructure

Survey Type	Purpose and Method	Optimal Timing+
Preliminary Ecological Appraisal (PEA)*	Assess potential impacts on bats and whether further surveys are required, by surveying potential roosting, foraging or commuting habitat for bats. Also requires desk study. (A full PEA may not be required for small projects)	Any time of year
Preliminary Roost Assessment (PRA)	Detailed internal/external survey that aims to confirm actual or potential bat presence. The development is categorised as having <i>no, low, moderate</i> or <i>high</i> suitability for bats. (No suitability means no further surveys required). Also assesses hibernation potential of development.	Buildings: Any time Trees: December to March for ground level survey ‡
Presence/Absence Surveys	Verify bat presence/roost type (if not confirmed by PRA). Several dusk/dawn surveys undertaken, depending whether there is <i>low, moderate</i> or <i>high</i> suitability for bats. As a minimum: Low suitability = 1 survey (dusk or dawn) Moderate suitability = 2 surveys (1 dusk and 1 dawn) High suitability = 3 surveys (1 dusk, 1 dawn and 1 dusk or dawn)	May to August (one of the surveys may be May to September, for projects with moderate or high suitability)
Roost Characterisation	Undertaken in certain circumstances if bats are present but it has not been possible to determine the species or type of roost(s) in previous surveys	April to September
Hibernation Survey	Winter survey to confirm presence/likely absence of hibernating bats/their roosts (if not previously confirmed by PRA)	December to February

^{*}A PEA report alone is inadequate for submission to the Planning Authority, if further bat survey/mitigation is required †Surveys should be carried out at an optimal time of year and must be undertaken at least two weeks apart ‡Aerial inspection of potential tree roost features can be undertaken at any time to confirm presence/absence of bat species

4. Bat Survey Reports

Following surveys, the bat specialist should produce a formal report detailing results, including any bats/roosts present, their value and significance and how they are likely to be impacted by the proposed development. In addition, the report should advise on how any likely impacts can be avoided or mitigated in order to result in no net loss (and if possible a net gain) to the favourable conservation status of the bat species concerned. **This formal report should be submitted to the Planning Authority, before the application is determined.**

The diagram below summarises key information bat surveyors should include in their report? Reports should also include supporting material in appendices, evidencing results and advice provided, e.g. photos; maps; background data on local designated statutory/non-statutory sites; bat species; or other protected species present. If the report contains sensitive ecological information, it should be clearly marked as confidential.

	Survey objectives; site location; current/planned future use of structures; description of surrounding
Context	habitat; proposed works
	Detionals for mothed used coalerists' qualifications againment list data/timings/type of company discusses of
	Rationale for method used; ecologists' qualifications; equipment list; date/timings/type of surveys; diagrams of buildings surveyed and surveyor positions, roost locations, access points; weather details; data sources for desk
Methods	research; survey constraints
	Desk survey data; description of how bats are using site; number/type of roosts; number and type of bat species
Desults	present (evidenced by data/DNA from droppings/photos)
Results	
	Interpretation of results, linked to assessment of likely impact of proposed works on bats/roosts and to relevant
Analysis	legislation/policy; assessment of likely impact on the favourable conservation status of bat species present

Next steps required e.g. Species Protection Plan (see oveleaf) including further surveys; options to avoid impact such as changes to proposed works/timings; measures to mitigate unavoidable impacts; opportunities for enhancement; EPS licensing and monitoring

Advice

5. Species Protection Plan

If bats are present, provision of a Species Protection Plan in the *Advice* section of the report can recommend approaches that may enable development to go ahead whilst safeguarding bats and their roosts. The plan must be informed by the results and analysis of surveys. **A Species Protection Plan can also minimise the risk of delays to the processing of any planning consent or EPS licencing.**

The Species Protection Plan should:

- Outline methods to avoid impacts or disturbance to bats or their roosts. This is the plan's primary purpose. Avoidance of impact may be achieved by changing the design, timing or location of proposed works.
- Include details of mitigation and/or compensation where impacts are unavoidable
- Identify whether or not a licence is necessary (by showing where an offence would otherwise be committed).
- Outline how development works (including licensed works) will be undertaken in relation to bats, through a
 detailed method statement
- Outline monitoring methods for the Species Protection Plan, once implemented.

As stated at the beginning of this document, providing adequate survey information, in addition to plans for mitigating impacts on EPS such as bats may help streamline the decision-making process for planning applications.



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